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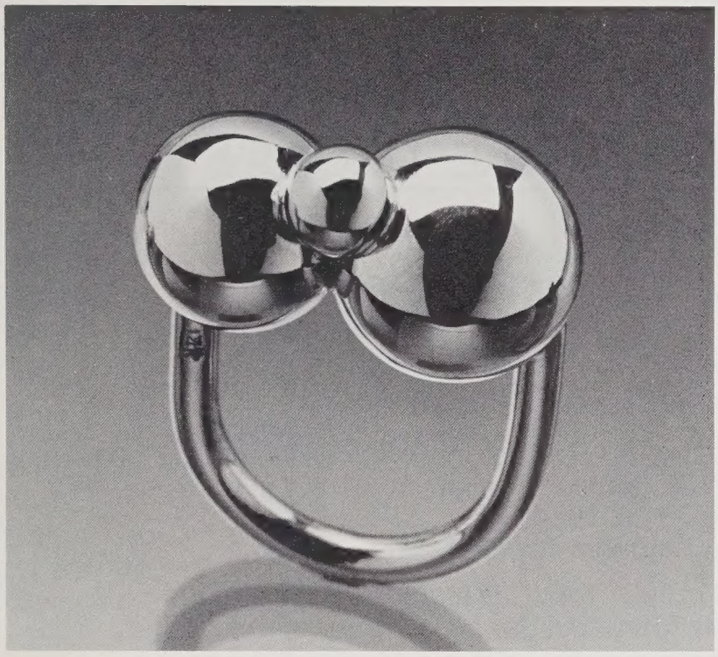

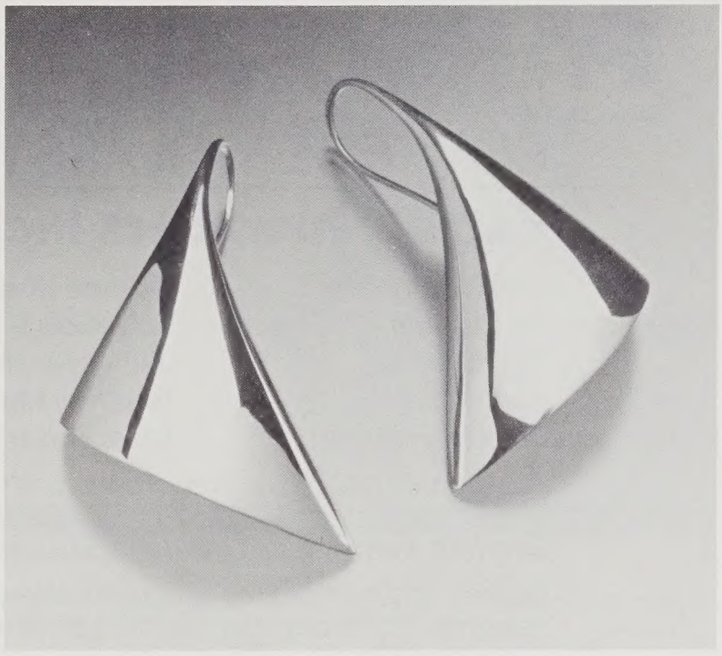

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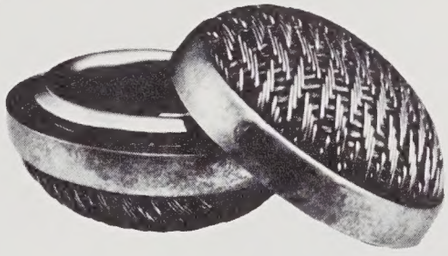

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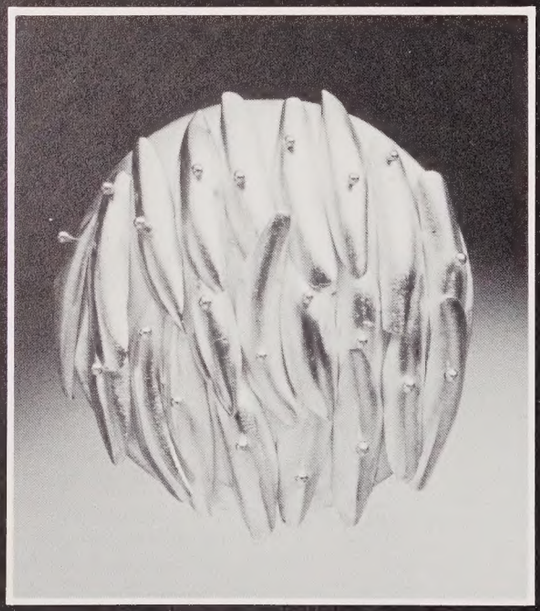

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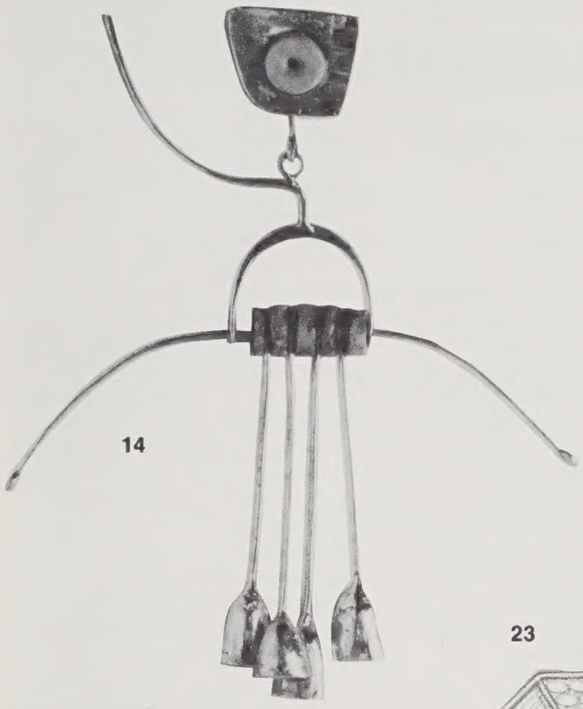

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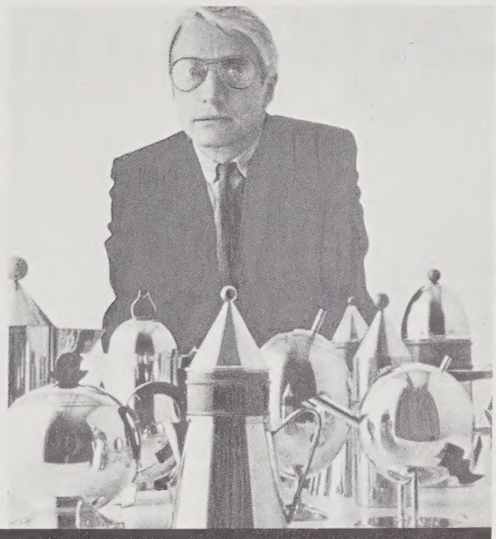

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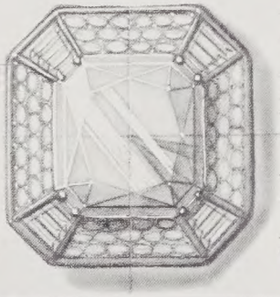

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Letters to the Editor

Editorial

Many letters received are of interest to the entire readership. Unless stated otherwise, all letters received may be included in "Letters to the Editor." Address letters specifically for this section to: Sarah Bodine, Editor, Metalsmith, *1 Penn Lyle Road, Princeton Junction, NJ 08550. Letters should be signed and a return address given. We reserve the right to edit for publication.*

Dear Editor:
What is happening to the goals and aspirations of *Metalsmith*? Although it has never been stated anywhere (a sore lack of resolve by itself), at least it was safe to assume that the magazine was kept alive by hook or crook for the purpose of promoting American metalsmithing, and educating audiences to be aware of what American smiths are doing within the parameters of the Society of North American Goldsmiths. That self-assertive objective has been toppled in the past two issues.

It makes one wonder whether or not American smiths are at work at all, or that the editors cannot conceive of the fact that there are *young,* contributing American metalsmiths west of Hudson River, who need the ink more than the foreign artists, who get "their day" in their own countries' papers.

Characteristically, the last issue devoted more pages to the Atlantic shores, east and west, than to Sample and Noland in Iowa. The last two issues have given the spotlight and cover to foreign smiths, whose profiles and sales promotion can be read in their respective countries' trade journals (often subsidized).

It seems that great injustice is brought to bear on those who pay for *Metalsmith* only to find that the good it produces goes to outsiders.
—name withheld on request

Dear Editor:
Kenneth Bates asks, in his keynote address to us ("The Psychology of Slowness," *Metalsmith,* Volume 3, Number 4): "Why must our lives be so regulated by deadlines?"

It seems to me it is that way because we choose to have it so. We use a language that employs abstract concepts of past and future. We wear watches and keep calendars. We contract for shows and exhibitions, commissions and speaking engagements. And, in keeping with Mr. Bates's "chicken-coop" philosophy, our first deadline is our birth. A way to avoid deadlines, then, is to avoid relationships, commitments and agreements. Whenever I have bitched and complained about the pressures of deadlines, I have found myself to be totally responsible for taking on those obligations.

I have noticed over the years that I make agreements with myself to complete each piece within a given time span. During the making of a piece multitudes of choices arise. Decisions must be made (also agreements with myself) and the other choices discarded or put on hold. Without that very arbitrary deadline (I made it, I can also change it), decision making (designing) gets wishy-washy and, often, so does the resulting work.

And setting a deadline, a "completion date" for a work in progress, is useful for creating a frame of reference between my "work" (play) and the other activities of my life. And, yes, dear Kenneth Bates, some of those activities are looking, listening and being, as a five-year-old.
—Carrie Adell

Dear Editor:
As founder and director of the Spring Street Enamels Gallery, I would like to formally announce the closing of our doors while relocation takes place. For six years our SoHo gallery has been unique in its commitment to presenting the highest quality enameled art being created by contemporary artists. I wish to thank all of the patrons and artists who contributed to the success of this concept which the gallery embodied.

When the Enamels Gallery first opened, public awareness of the medium was almost nonexistent. In 1977, we began displaying the works of a mere 12 artists, but by 1983, this number had grown to over 100 artists of international renown. Exposing people to the highly expressive possibilities inherent in the medium, public enthusiasm soon caught up with our own. Appreciation and knowledge of enamels has increased to the point where enamelists can now create for a market that recognizes and accepts the enamels media as a fine art form. Being among the first institutions contributing to the enamels renaissance we are now witnessing is perhaps our proudest achievement.

It has been a joy handling the beautiful and innovative artwork of so many serious and creative artists. The people for whom our specialized exhibitions were unique experiences made our effort most rewarding. To all of you, I extend a heartfelt thanks for making Spring Street Enamels Gallery the important vehicle it grew to become. I hope the gallery enriched your lives as much as it has enriched mine, and I look forward to future involvement with collectors and creators of enamel art.
—Joan Itzcovitz

At a workshop I conducted recently, I spoke with a jeweler who was bemoaning the high cost of tools and materials, especially silver, gold and gemstones. She went on about how it would be so much easier and cheaper to be in another medium—ceramics, for example, since clay is so cheap.

There is no doubt that the base expense of working jewelry is high, yet jewelers also have a unique set of advantages. Nearly everyone buys some jewelry; very few women refuse to wear it at all. Thus, not only is the market open, but it has also been well established and reinforced by continual national advertising by large companies, which the small-time jeweler could hardly afford. Due to the middlemen and markups common in the commercial world, it is not all that difficult for an art jeweler, dealing as an independent artist through a gallery and/or directly with the public, to remain close to the commercial retail pricing structure, especially with limited production pieces. Good art jewelers should be able to live comfortably, as art jewelry is generally much better designed than its commercial counterpart and thus should command a higher price. Also, many silver/goldsmiths have discovered (once they have found the funds) that using gold and stones versus silver greatly increases the value of a piece to the consumer. Time being an equal factor, you can take a better markup in proportion to material costs with sterling pieces, but you can net more for your time working in gold. People will easily spend $200 to $600 for a gold ring, but not many will spend a similar amount on a ceramic vessel, no matter how much time or artistic integrity may have been involved.

So, yes, it does seem, unfortunately, to take money to make money, but you can start miniscule and slowly build. Any small business consumes an extraordinary amount of time, money and energy to get going, and there are many pitfalls, but the satisfaction of being *in charge* of your life may be worth it.
—MB

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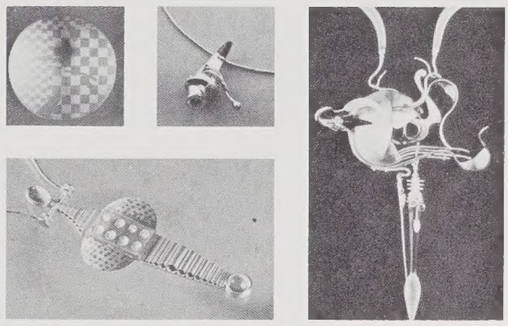

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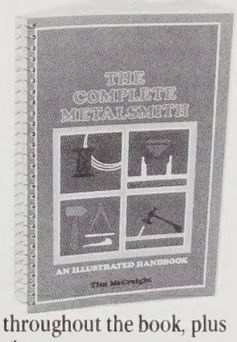

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The Ardagh Chalice A Case History

by Robert M. Organ

edited by Ken Coleman

Ardagh now is scarcely more than a place-name; it is in County Limerick in Ireland. In 1868, while a peasant was digging potatoes he found at a depth of three feet some bronze objects and a silver chalice. These objects were taken to the convent at Limerick, where they were examined by the Bishop and by Lord Dunraven, an amateur antiquarian. Later, these objects passed to the Royal Irish Academy in Dublin. There they were cleaned and the chalice (shown above) examined by a jeweler named Johnson. Johnson's report on it was incorporated into the report that Dunraven published in 1874. Illustrations for his paper were drawn by Margaret Stokes, a writer on the antiquities of this period, who used photographs as the basis for her drawings. Her photograph album, recently discovered through the exertions of Etienne Rhynne, staff member at Dublin who went to London on occasion to consult during the work, helped solve a problem that had arisen from observations made in the course of the examination.

In June 1961, the chalice was taken to the Research Laboratory of the British Museum for repair because it had become loose at the joint between bowl and foot. This necessary work was also to provide a convenient occasion to study the chalice. The following account itemizes some of the complexities encountered and gives an insight into the problems that can arise in a museum laboratory.

Objectives and Examination The objectives of treatment were as follows; first, to secure the loose neck; second, to check the accuracy of Dunraven's account and especially to confirm the existence of an iron bolt which Dunraven wrote "holds all together"; third, to determine the nature of the various material employed. According to Dunraven's account there were 354 parts to the chalice which was made in about 800 AD.

As a preliminary, examination was directed toward discovering how the chalice was constructed. An initial photograph of the bottom of the chalice suggested the presence of metal foil under the central crystal that is on the underside of the foot. It was deduced that if present the foil was perforated. Perforation could have occurred at some earlier examination as a result of the central crystal dome having been rotated carelessly in its mount against some sharp metal object lying beneath the foil.

The next stage of examination was to touch the underfoot disc, the component decorated with the five small circular studs, and to attempt to rotate it gently. The disc could rotate only through a small angle. From this it was deduced that the disc was mounted loosely upon a square bolt, or at least upon a bolt whose end was not circular in cross section. The parts were next separated; first, the crystal was eased from its mount. Then the whole of the mount was lifted away from the under-foot disc. This then revealed inside the foot-cone the expected square bolt. It also revealed two sharp tags projecting from the end of the bolt. The earlier deductions now stood confirmed: here were the sharp projections that had torn the silver foil and also the square bolt.

The next stage of exploration was to lift away the foot-cone. This revealed the lower of the three rings of the neck assembly and also exposed a mass of lead that locked the bolt into the central ring of the neck.

At this point, it was believed that the lead in the neck has been inserted by Johnson and that it could therefore be removed if need be because it was not original. In fact it was shown later to have been original, but removal now was essential, whatever its origin, because it was endangering the stability of the chalice: the lead had corroded and had been forcing the foot away from the bowl. This turned out to have been the source of weakness in the neck that had initiated the work.

The lead was removed very carefully. Looking at the inside of the neck it may be noted that the lead that had lain against the silver bowl is white with corrosion products. Circular turning-marks in these suggest that a lathe had been used.

The two handles of the chalice were secured to the bowl by two rivets at the top and two rivets at the bottom that are covered by small glass studs. The handle shape suggests a curved sheet of silver having flanges, serving as stiffeners, attached to both sides. It was a question whether the handles had been cast in one piece or whether parts had been soldered together. This question could have been answered by making a metallographic cross section in some portion but removal for such a purpose was not permissible.

Examination of the surface of one handle under a microscope suggested that the handles had been cast. This impression was confirmed by an examination of the curvature of the C-shaped flanges on the sides. It can be seen that the "C" is not part of a circle—its radius of curvature varies from point to point. This was quite an important observation because if the handle is not circular, with a readily repeatable curvature, then there is a strong probability that one side of the handle will have a slightly different curvature from the other.

To investigate this probability a very careful transfer was made of the curvature of the flange. This was done by placing a transparent sheet of "Kodatrace" backed with carbon paper against the flange and then rubbing the Kodatrace in the region of the metal edge through a plane at constant inclination. By this means the line of the edge was transferred through the carbon paper to the Kodatrace.

The trace was then laid against the other parallel flange of the same handle and it was observed that the two curvatures were different. In other words, the handle was asymmetric. By comparing tracings against flanges, it could be shown that the two sides of one handle differed from each other but were identical with the corresponding sides of the other handle. This implied that both handles were made from a single pattern by casting.

Figure 1 shows the silhouette obtained by using a point source light and sensitized paper to make a shadowgraph. Dimensions have been added to it, showing that beneath the rim the silver is about one-half millimeter thick, whereas at the center of the bowl the silver is a whole millimeter thick. From these measurements it can be deduced that the bowl was made by the process of raising.

The upper edges of the outline, representing the sharp rim of the bowl, were covered in the actual object by a rim made of gilt brass. This had a rounded upper surface and a groove beneath to fit over the edge of the bowl. It was held in place by three tapered pins which were spaced around and passed through the rim and were bent over on the inside. The shape was determined with certainty by making an impression. A short length of the rim was laid in a channel, its ends stopped with wax. Ready-mixed fluid cold-setting silastomer was then poured into the space and allowed to cure. When hard the rubbery impression was slit and peeled away from channel and rim. Cross sections were then made by cutting thin slices from the impression. These were laid on a glass plate in the photographic enlarger and the image projected onto bromide paper. From the silhouette thus obtained the dimensions could be scaled off, once the outside dimensions of the actual metal rim had been measured at the position from which the impression had been taken.

The neck assembly consists of three components, namely, the upper ring-mounting, lying immediately beneath the bowl; the cylindrical collar; and the lower ring-mounting sitting neatly on the foot-cone. The three components have been decorated externally by the kerbschnitt technique (a type of decoration of interlacing notches, from the German kerben or indent, to notch, and "Schnitt," pattern). They fit very closely together: when properly assembled the three could be lifted together as one by grasping the upper ring-mounting alone.

Examination of inner surfaces of the neck assembly revealed that the components had been cast. A casting flaw and many blow holes are visible on these inner surfaces. There is also a tiny plug of copper on the upper ring-mounting that the bronze founder had inserted in order to fill a particularly deep blow hole. In fact, this plug was found to pass through the entire thickness of the metal to the other side, where it was obscured from casual inspection by the overall gilding. Clearly, this one of the three components has been cast and the other two show similar features.

These observations of the inner surfaces do not answer the question of how the outer decorative pattern was made. It could have been cast or it could have been punched or chiseled. This problem was solved by examining the structure of the metal of one of the components. Preparation of a special taper section by metallographic methods was found to be unnecessary because an area from which gilding had been lost some time ago was discovered on the basket weave on the collar. From this spot the corrosion products that had formed during the centuries were carefully thinned by mechanical means and the final traces obscuring the metal were removed by a gentle chemical etching reagent.

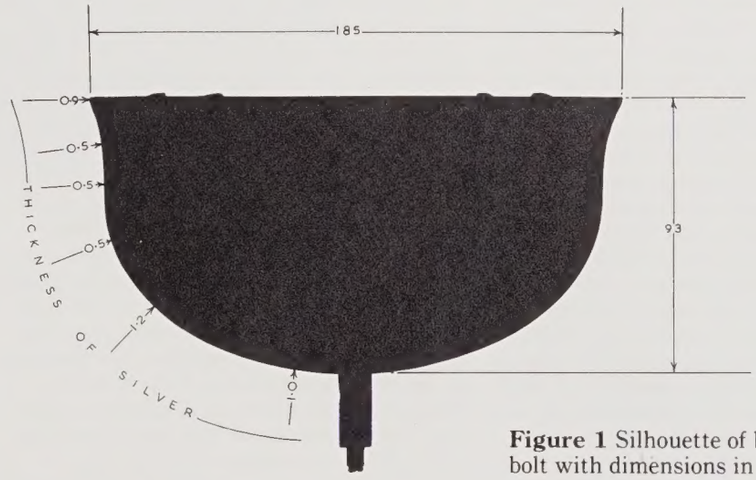
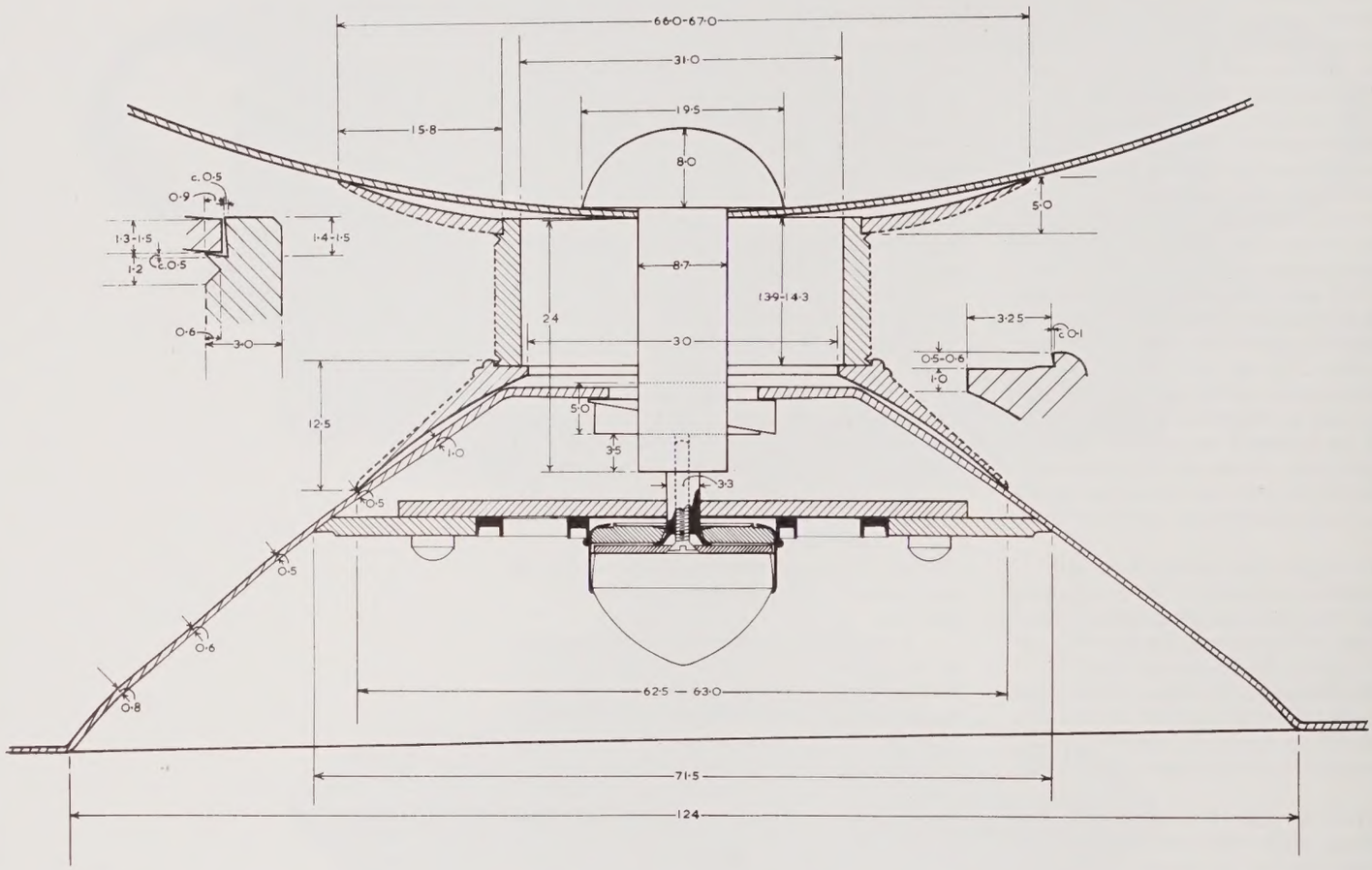


Figure 1 Silhouette of bowl and bolt with dimensions in mm

Figure 2 Drawing of cross-section of central portion of the chalice with dimensions in mm



This process revealed a ladderlike pattern that represents the dendritic structure of cast metal. Because the straight lines of the dendrites pass up to the surface without deformation, it is difficult to believe that the metal could have been either punched or chiseled. A chisel could scarcely have failed to deform the dendrites near the surface. Quite clearly here was a pattern that had been cast into the surface and, at least at the spot examined, had suffered a minimum of subsequent correction.

Next let us consider in the drawing, figure 2, the silver foot-cone that supported the neck. Notice particularly the size of the aperture in the flat top of the foot-cone. In the plane of the drawing the foot-cone does not touch the bolt anywhere, but in a plane a few millimeters behind this the aperture fits the bolt closely. The bolt has a rounded head that lies inside the bowl and has been gilded. It protrudes downward from beneath the bowl and holds all of the various components together. Dunraven stated that the chalice was fastened together by an iron bolt "which secured all together." The bolt actually found was made of copper, not iron. It was square in section with a tubular extension at one end and a rectangular slot passing through the copper that could serve as a key-way. Seen from above, the aperture in the flat top of the foot-cone was square, fitting closely against the bolt with additional slots cut on two opposite sides.

Although the copper bolt observed was not the iron bolt noted by Dunraven, an iron key was found that actually passed through the slot in the copper bolt and lay in the two additional slots found cut across the central square. The iron key lay there quite loose and served no useful purpose whatever. It was deduced that this was not the original key. Confirmation hinged on the fact that if the original key had been made of iron it should have rusted extensively because it would have lain underground in contact with a nobler metal, silver or copper, for over 1000 years. The product of corrosion would have been iron oxide, of greater volume than the iron. This should have resulted in expansion of the key against the top of the foot-cone. Some evidence of such an expansion might have been preserved as a deformation of the silver at areas of contact with the key.

The evidence was provided by projecting a grid pattern obliquely on the top of the foot-cone. The curves of the shadows cast by the grid indicated quite clearly that the slightly concave top has been deformed along the axis of the two side slots in which the iron key was discovered lying loose. It was also observed, in confirmation of this finding, that the whole foot-cone had been distorted slightly along this same axis.

It was next argued that Johnson would have had to break away the original corroded iron key in order to dismantle the chalice and that when during reassembly he came to insert a replacement, the key actually found there, he would have been unable to do so because of the unsuitable simple shape he had given to it. Then, in the last-minute flurry to get it assembled in time for collection he had cut out the side slots in order to admit the key. This was another theory for which confirmation had to be sought.

On the axis of the side slots, at the right-hand side, is a rather ragged scratch line. It is believed that this was made at the time when Johnson was struggling to insert his key. The key slid down the side of the foot-cone, marking it because of a rough corner at its rear edge, and was then wiggled side to side in an endeavor to force it further. The impossibility of inserting such a key was checked by making a key and attempting to insert it. The fact that this experiment was made may suggest that the test caused the mark. Actually, photographs made of the foot-cone before the time of the theory revealed the mark already present, although it had not been noticed at that time.

Let us turn to the drawing, figure 2, examining now the under-foot mounting in

which the central crystal was set. Although this mounting was decorative it served to hide the central fixing device and also served a structural purpose: it centralized the bolt on the axis of the foot-cone and made the whole structure rigid. The mount for the crystal itself is held against the back plate by means of the so-called catch disc (figure 3). Looking outward along any radius of the mounting, a number of features can be observed. First there is a gilt silver channel which contained fragments of malachite and amber. Outside the channel lies a circle of gold filigree interlace, zoomorphic in style. Outside this again lies another channel, silver-gilt, now empty. Beyond this is a double feature: a gilt bronze circle that contains five studs and an outer circle of gilt bronze interlace. The various circles can also be seen in figure 3.

Figure 3 Detail of the underfoot disc without its central crystal

The central catch-disc, when removed from behind the crystal, had exactly the appearance of having come from a modern clock: its back had been lathe-turned. The problem was to decide whether this disc was indeed a modern introduction or whether it was the original ancient catch-disc.

One method of examination involved making a minute metallographic cross section. The cross section reveals two thin broken white lines on the two surfaces of the disc. The lines represent gilding about .002mm thick. It is believed that this gilding was applied at the time of Johnson's restoration because similarly thin gilding has been observed elsewhere on the chalice. This thin gilding was absent from the lathe-turned surfaces of the disc. From this it may be deduced that the lathe turning followed gilding.

The metallographic section, viewed at a magnification of 50 diameters, contains numerous nonmetallic inclusions. This suggests that the metal is ancient. It therefore appears probable that the disc was the original catch-disc, regilded by Johnson and altered at the last moment in order to allow the crystal to be fitted securely into its mount.

Now let us turn our attention to figure 2 again, in order to consider some evidence that tends to suggest that the original intention of the designer of the chalice was frustrated during actual construction. Considering the under-foot mounting as it lies within the foot-cone, it will be noticed that by raising it through a distance of about 3mm it will lie neatly against the end of the solid bolt. This position would provide a much more rigid support than does the actual position in which it was found—part way up the thin tubular extension to the bolt. Furthermore, by raising this disc-shaped mounting by 3mm its edge would seat on the inside of the cone exactly level with the lower edge of the lower ring-mounting, which has already been noticed as the only portion of this mounting to make firm contact with the foot-cone. The disc can be reduced to the diameter needed for this arrangement, exactly, merely by taking away completely the outer element of ornament—the narrow outer interlace pattern that was mentioned above. In this new arrangement, the foot-cone would be clamped between a solid neck-mounting of cast bronze and a solid under-foot disc of cast bronze. The disc would be mounted very securely on the end of the stout solid copper bolt and the bolt would be located centrally in the strongest part of the foot-cone in a close-fitting square aperture. This arrangement could provide a very strong structure through which the bolt passes axially. There should have been no need for the mass of lead that was cast into the neck because a workman found himself unable to maintain the bolt in an axial position in the assembly. This and other evidence indicates that the designer of the chalice was much in advance of the means of construction that were available.

When the chalice was finally reassembled at the British Museum, the lead which, corroding, had endangered the security of the assembly was taken out of the neck and replaced by a spacer made of polymethyl methacrylate. This is obviously a 20th-century fitting and could not be mistaken at some date in the future for work of the 8th or 9th century. An iron key was not replaced through the bolt because experiment had shown that one long enough to be secure

beneath the slotted foot-cone could not be inserted. Instead a pair of brass wedges were inserted. These ensured that the bolt remained perpendicular to the flat top of the foot-cone. Instead of allowing the whole weight of the under-foot mounting to be suspended on the two small tags of metal, an 8 B.A. brass screw was inserted and a substantial brass disc was added beneath the crystal in order to support the load. The one completely detached tag was refitted with expoxy resin.

The various decorative plates on the underside of the flange of the foot-cone, include one of silver, one of copper and another made of woven wire. A combination of such plates made up the whole decorative scheme. The silver plate was made of very thin silver, embossed into a pattern, supposedly, by the "pressblech" process, in which the silver was beaten down against a shaped die. Evidence was found that the four plates of silver had indeed been made in this manner. Of the four plates, all have patterns that are identical in shape, except the corner of one plate, on which a second misplaced impression of the pattern appeared, perhaps because the workman had mis-struck on the first occasion.

Next let us consider the panels beneath the foot made of woven wire. The upper panel has a square pattern and the lower one has a herringbone pattern. It will be seen when the same panels are turned over that the upper panel now has the herringbone pattern and the lower panel has a similar but rather rounded pattern. In the final reassembly the sides to be exposed were selected so that both of them would exhibit the herringbone pattern. Photographs made while the panels rested on a illuminated sheet of translucent glass in order to remove distracting shadows indicate clearly that two different kinds of wire are present, one was made of silver and the other of bronze.

Figure 4 shows the assembly of the foot-girdles. Above the lower girdle is shown a panel about to drop into place. A tiny flange had been formed on its two ends so that it could not drop quite through. Above lies a ring of lead and then the flange of the foot-cone. The upper girdle lies around the flange. It is pierced by apertures for eight square studs and for eight intervening panels, of which four remain. These panels were made of cast bronze with openwork patterns that were gilded. They were backed with plates of mica, presumably with the object of making the panels gleam but in fact to little practical effect. The holes that are visible here through the apertures that lack panels were of some interest. They were quite large, about 2mm in diameter. They did not lie on the exact center line of the panel apertures. In contrast the hole shown at four o'clock, at the square aperture for a stud, is different in size from the others and lies exactly in the center of the square aperture. In fact, there were eight of these smaller holes set on a circle of large radius, and there are eight of the 2mm holes set on a circle of smaller radius.

Next let us turn back for a moment to figure 4 and examine the arrangement of the girdles above and below the flange of the foot-cone. This had presented a problem ever since the foot was dismantled. At that time it was discovered that the various components had been tacked together and onto a flat lead ring, which had been incorporated into the foot assembly, by means of lead-tin solder. The presence of this lead ring was not an essential feature of the design. It should have been quite unnecessary and probably had not been intended by the original designer. He probably intended to rivet the lower studs directly onto the lower foot-girdle through the small holes made for this purpose on the circle of larger radius. The upper studs would have been riveted to the square back plates that appear just beneath them in figure 4. These plates would have served as flanges to prevent the studs from leaving the apertures in the upper foot-girdle, through which they protruded. This was a general principle of the design. All the panels had flanges of corresponding pur-

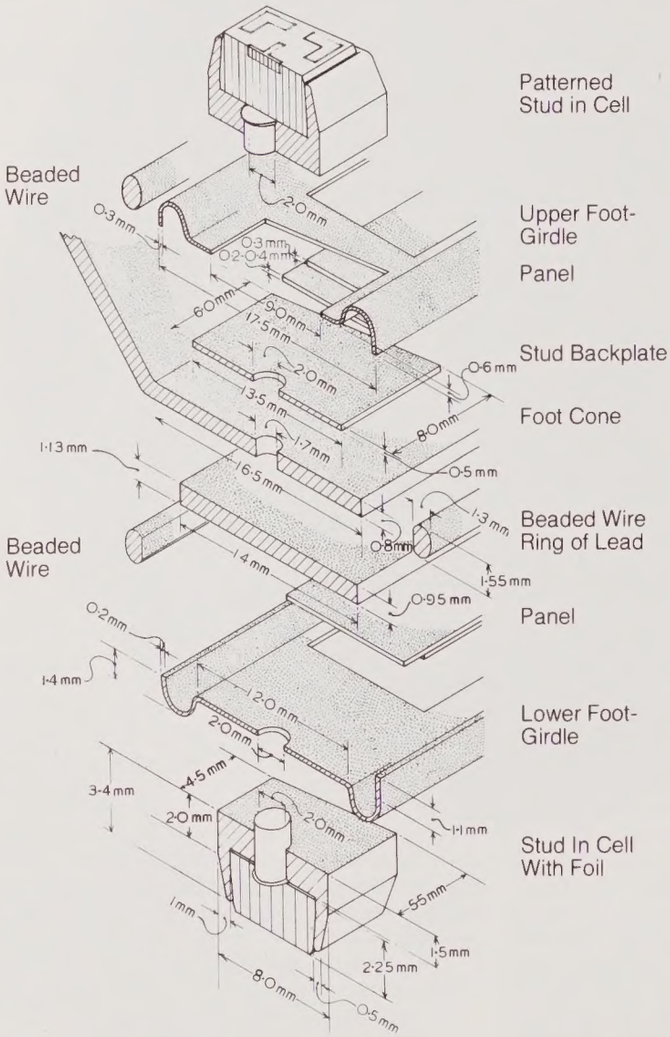


Figure 4 Exploded drawing of assemblage above and below the flange of the foot-cone

pose. He probably intended that the two girdles would be held together above and below the foot-cone flange by soldering along their outer edges. In this way they would secure the studs and panels.

Nevertheless, Dunraven's account refers to "plates of lead" in the foot—not to a single ring of lead such as was found but to multiple plates of lead. It seems likely that the designer's intentions had been frustrated by lack of skill on the part of the worker. He had had to insert lead packing plates into the foot because he had been unable to make his foot-girdles lie flat and sufficiently closely against the flange of the foot-cone to hold the various panels securely in position. When Johnson carried out his restoration he in turn made a whole ring instead of separate plates, and he tacked all his panels on to it by means of lead-tin solder.

Next let us pass to the bowl girdle, the circle of panels below the rim. It consists of an openwork silver frame passing around the bowl inside the handles. It is pierced alternately with circles for the studs to protrude through and with long apertures to display the panels.

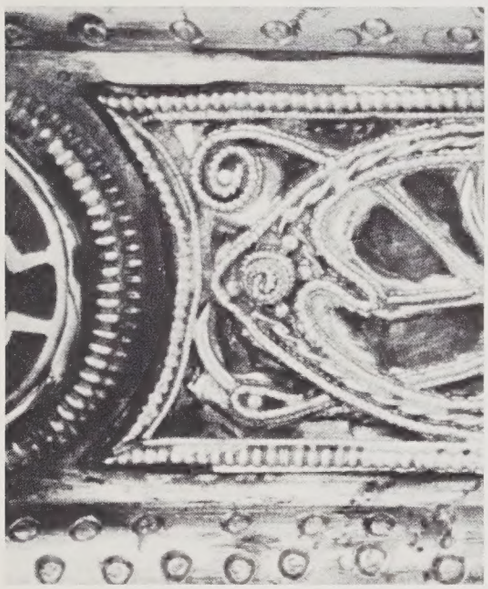


Figure 5 Detail of portion of zoomorphic panel from bowl girdle

In the upper length of a short portion of the girdle there is, to the right of the left-hand stud, a length of inserted silver that is very much whiter than neighboring metal. When seen from the back it is clear that two pieces have been soldered into place with hard solder. The panels that were set in the long apertures in the girdle, consisted of three types: zoomorphic, ornithomorphic and knot-work. The zoomorphic panel shown in figure 5 was made up in three layers, first the lines of the design ridged up in gold in the press-blech manner with the intervening background cut away; second, lying along the top of the ridges, soldered on, was a treble layer of beaded wires, only the top row being visible in the photograph at first sight but all three being clearly present on close examination; third, backing the openwork pattern was a plate of gilt copper, taken away for the purpose of making this photograph. Around the panel, beyond the bordering beaded wire, was left a narrow flange that would have prevented the panel from falling through the containing aperture in the original design.

Next let us consider the two roundels, which are located on the bowl between the handles. Thick silver has been formed into the eight-lobed open frame of the roundel. Within each aperture is a gold panel decorated with beaded wire and also faced with a decorative surface.

Around the periphery of the roundel are four studs. The two along a horizontal line are made of blue glass and the two along a vertical line are made of red material that in fact now consists of wax. According to Dunraven this was originally amber, but no trace of amber was found. These four studs hide the four rivets that attach the roundel to the bowl. One of these rivets, which is typical of all, is hollow and was made by folding copper sheet into a tube. It was then soldered to the head of the rivet, a tiny convex disc made of silver, in order to blend visually with the interior surface of the silver bowl on which it lay.

Next let us examine the handle escutcheons which provided some features of interest (figure 6). The design is very elegant. It incorporates three subconical studs. The lowest stud has a central area decorated with gold granulation. Around its base is a partitioned ring filled now with malachite and originally decorated with roughly plano-convex cylindrical amber beads set upon the malachite.

In the lower foot girdle there were eight studs of almost rectangular shape that supported the whole weight of the chalice on the table and were in consequence very much scratched. They were made of pale blue transparent material. One of the studs was missing and a backing of patterned silver foil was exposed. We wanted to discover whether all of the studs were backed by similar silver foil. In order to establish this and to discover the pattern of the foil it became necessary to take photographs through the almost-opaque scratched surface of each stud. To do this the stud was coated with an oil of suitable refractive index that would fill the scratches and give them optical properties similar to those of the mass of the material. Bubbles in the stud provide clear evidence that the stud was made of glass and not of semiprecious stone.

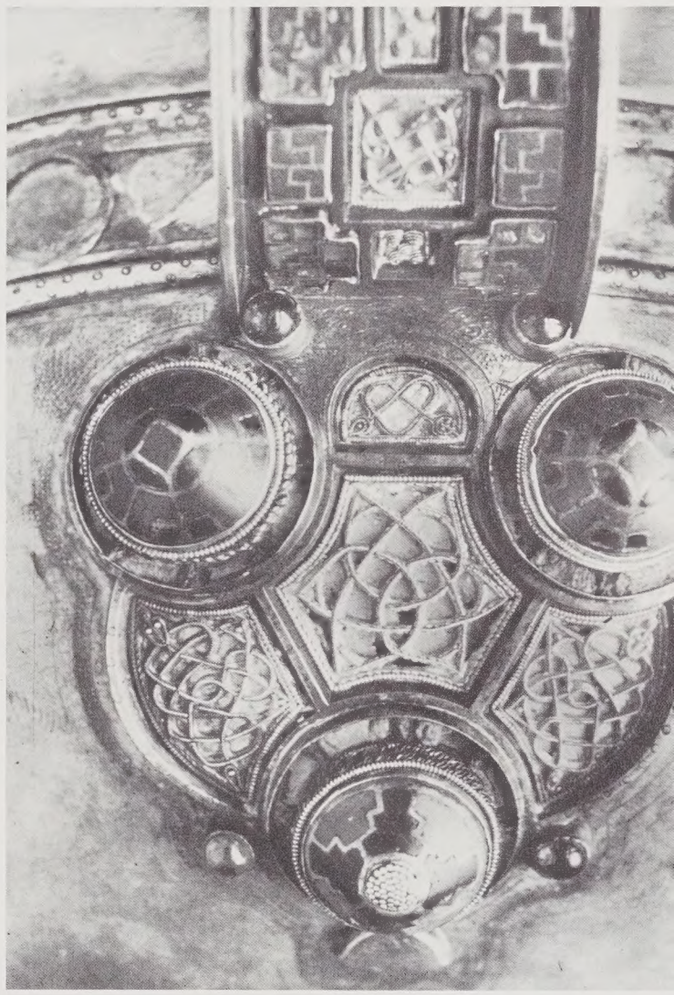
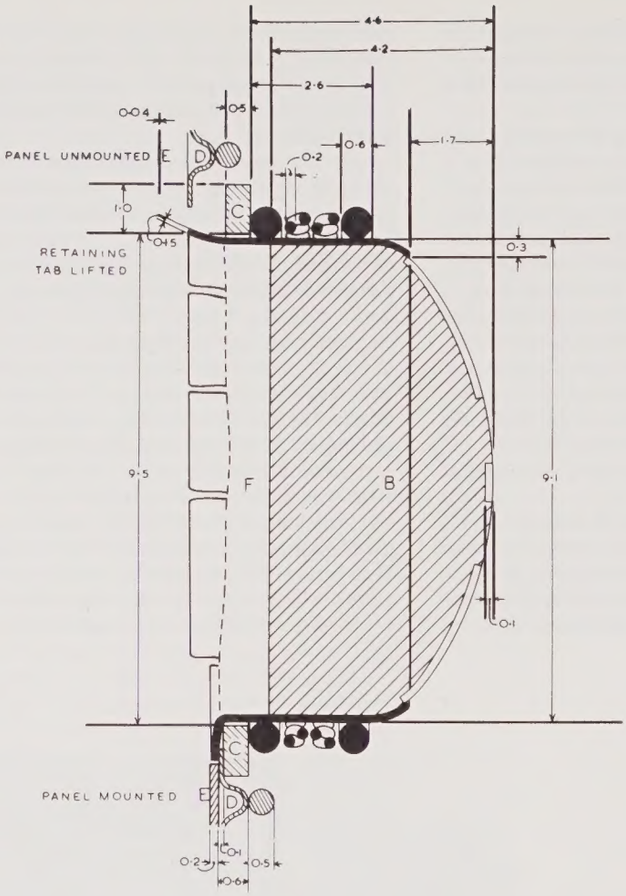


Figure 6 One of the two escutcheons beneath a handle, before cleaning



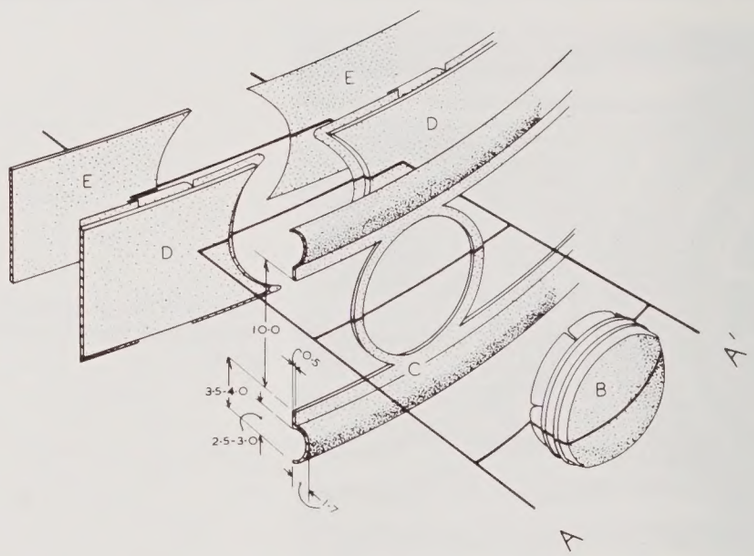


Figure 7 Cross-section and exploded view of a glass stud in the bowl with dimensions in mm

B Glass Stud in Silver Mount

C Girdle

D Panel

E Panel Backplates (thick and thin)

F Lead (in some cases)

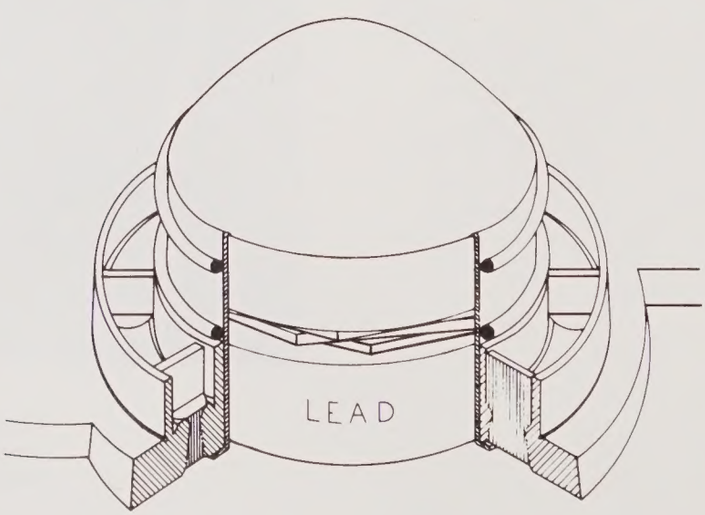


Figure 8 Construction of the subconical stud

In figure 7 all of the physical data concerning the silver grille and the glass backing of a stud in the bowl girdle have been incorporated in a single dimensioned drawing. It shows a cross section through the stud accompanied by an exploded drawing that indicated how the panels and panel back plates were assembled in the bowl girdle. The mounted stud B was passed from the front into the hole in the girdle C. A lead plug F in the cross-sectional drawing was pushed into the back of the mount and was expanded by a series of punchings around its periphery. The adjacent panels with back plates D and E were dropped into place in the apertures in the girdle and the slit edges of the stud mount were turned over to hold them in position. The drawing shows the condition of the girdle as received. It would have been more in accordance with the concept of the design if the edge of the back plate E, cut back by someone—possibly Johnson—had been left equal in length with the panel D and the two components had then been held together by the turned-over edge of the stud mount.

Figure 8 was made to illustrate the construction details of the subconical stud pictured on the handle escutcheon in figure 6. Beneath the stud can be seen three cardboard packing pieces. These pieces are part of a photographic print, possibly from the early

20th century, that must have been inserted at the time of some earlier examination.

The channel around the stud contained residues of green material that presented a problem. X-ray diffraction analysis indicated that it was made of malachite, but the shape of the filling indicated that it had been inserted while it was of a pasty consistency. If this were the case then the malachite may have been used in powder form ground up with a medium such as glue and inserted into the mounting to serve as a temporary packing and adhesive for the amber inlay. The fragments of amber inlay still remaining are plano-convex and are adequately held in position between the walls of the channel, under constraint by the lower beaded wire on the stud mount. It is suggested that the malachite mixture was applied as a temporary adhesive until such time as the stud mount should have been inserted as the final fixing device.

The problem of the arrangement of the 10 decorative panels in the bowl girdle may next be considered briefly. Their arrangement as received, unsymmetrical on both sides, had always worried the stylistic experts because it was said to be "esthetically impossible" for the Irish craftsman. Several symmetrical arrangements were proposed based on esthetic reasoning and on the existence of several sequences of numbers scratched on the backs of the panels. Other steps were taken to discover the original arrangement of the panels. A photograph by Margaret Stokes and a drawing by Johnson were examined. Each provided a different arrangement. The arrangement as received in the laboratory was not satisfactory because it was obvious that some of the panels were not fit into the proper place in the girdle.

The next attempt to resolve the difficulty ignored history: the actual physical fit of the various panels in the apertures in the bowl girdle was examined. About a hundred trials were made of the fit of each panel into every aperture, extending over several days. The results were categorized in lists. They revealed that the beautiful symmetrical arrangement was quite impossible in practice because all of the necessary panels just could not be inserted mechanically into the required apertures. It also showed that Johnson's arrangement as used in the representation was not mechanically feasible in the present condition of the girdle. The result also showed that even the unsatisfactory arrangement in the chalice as received had only become possible because Johnson had forced two panels into place. From the new data it was discovered that there were two arrangements of panels that were physically possible and that contained maximum symmetry. Agreement on one of these was eventually reached and the panels were replaced.

The chalice is shown above as it appeared after restoration. ■

This article is a condensation of a paper which appeared in a book entitled *Application of Science in Examination of Works of Art,* published by the Museum of Fine Arts, Boston in 1973. The author undertook his investigation of this chalice while employed at the British Museum Research Laboratory. It is reprinted here with kind permission of the Trustees of the British Museum as well as that of the Museum of Fine Arts, Boston, and the Royal Irish Academy, Dublin. *Metalsmith* would like to thank Ken Coleman for his sensitive job in condensing the original article, and the author, Robert M. Organ, for his cooperation in checking over the manuscript.

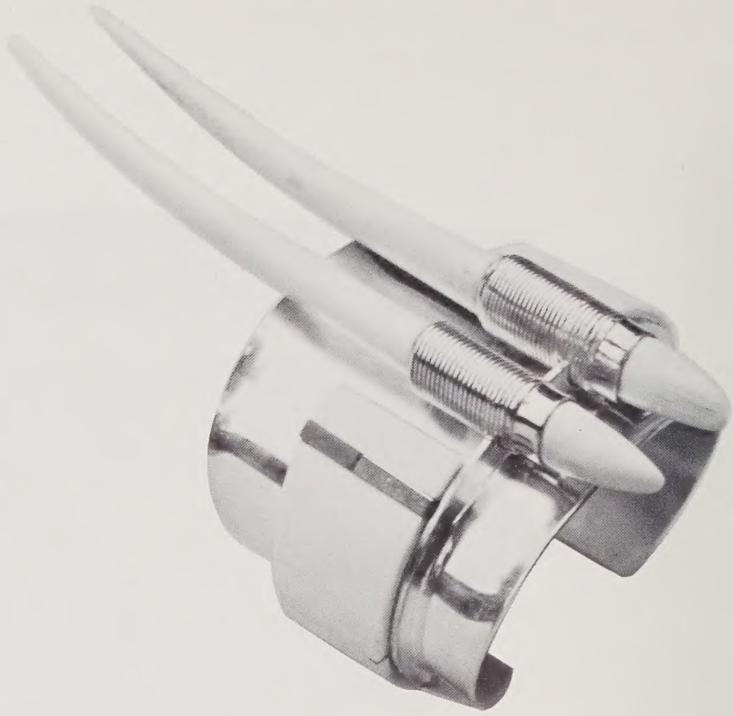
This appreciation by Robert McDonald, former chief curator of the La Jolla Museum of Contemporary Art in California, was written in 1980 to introduce Toza to the museum's patrons, who had never before seen an exhibition of contemporary jewelry in that environment. McDonald was attempting to bring a wider range of creative statements into his museum, whether they were designed to hang on a wall or about a human neck. In Toza he saw an artist who wasn't limited by media or inhibited by categorizing.

I first met Toza when I was a high school sculpture student. He inspires me today as he did then because he presents himself to everyone the same way. Uncomplicated in his speech and thought, he approaches his art and everything in life simply and directly. His time is spent doing things which please him, but he is careful not to hurt anyone else.

Making jewelry is not his passion. He is equally content building model boats, which he rarely bothers to finish, catching fish or being surrounded by the ones he loves. These are unseen but vital contributions to his art because they provide the ambiance in which he can create.

Toza's pieces are not so much inspired as they are triggered by something which catches his eye—whether it be a beach pebble, the prow of a boat or an element from someone else's work he admires. The fact that someone else was the first to do it is no deterrant. He will have his crack at it. What if the traditional materials used by American Indian silversmiths are turquoise and silver? Toza's way of using the material or technique will be his own. After all, he has done his share of influencing others. The freedom with which he produces his pieces give those of us who are influenced permission to do the same.

—Marcia Lewis



"Jewelry is just similar enough to sculpture so that it's deluding; you think that it operates on the same rules and you make presumptions that are not true. And then you find that suddenly you are in trouble. You find your sculpture then is really a piece of jewelry and not sculpture at all, or the other way around."

Master Metalsmith **Svetozar Radakovich**

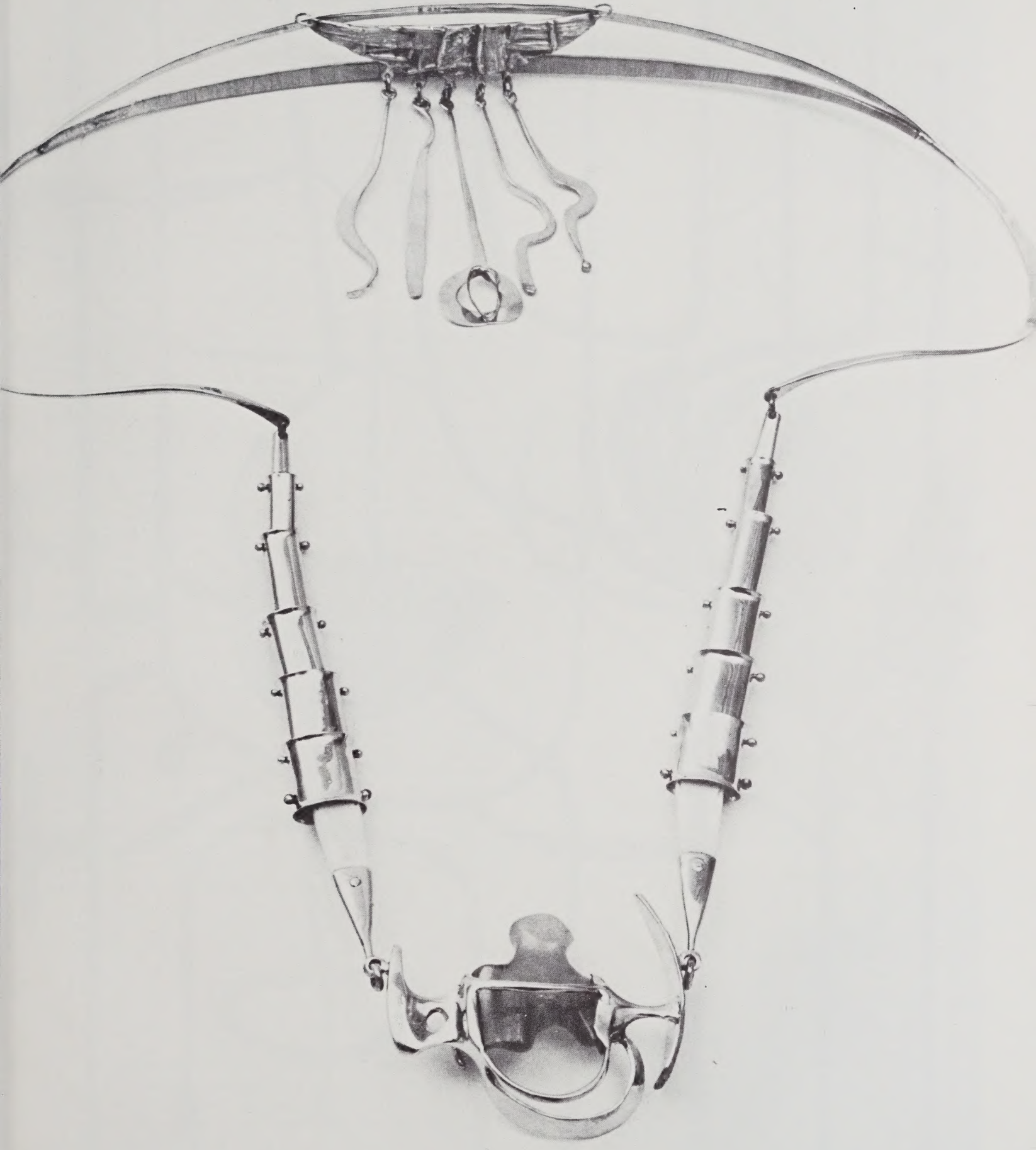
by Robert McDonald

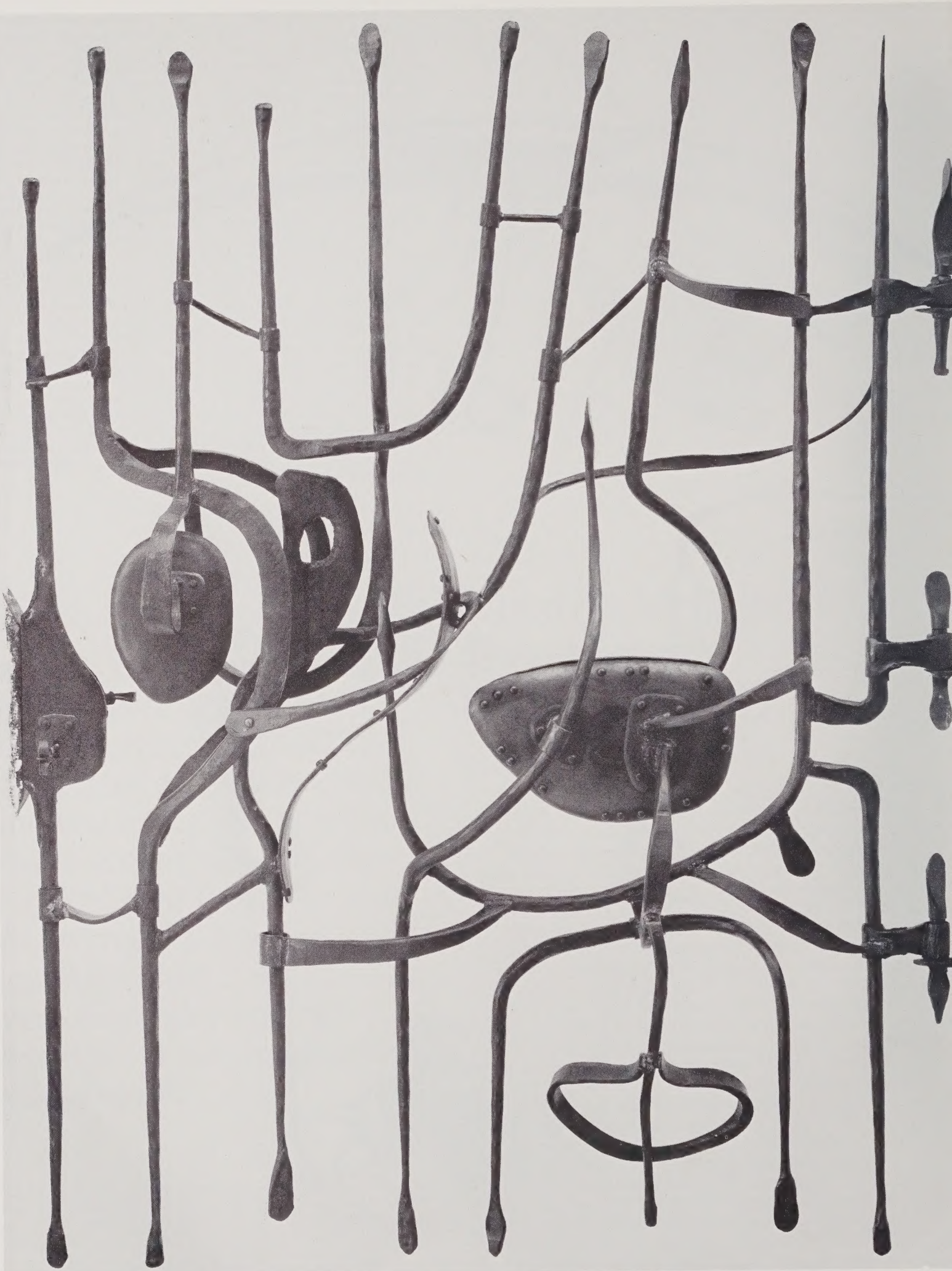
Jewelry, one of the most humanly intimate and antique forms of artistic expression, mediates directly between man and his environment, both natural and social. The maker takes his materials from the earth and its creatures, assembles them into useful and decorative objects and forms them to fit to the bodies of men and women, in their hair and on their garments. Such objects may anciently have served as protective devices, both physical and magical, as indicators of social status, clan relationship, military rank, political office and honors. The most sumptuous and elaborate have universally represented wealth. The most simple, common and symbolically potent piece of jewelry in the western world remains the wedding band. While the archetypal forms of jewelry such as the ring and the necklace remain constant, their possibilities for elaboration in design and variation in materials are, nevertheless, infinite.

Svetozar Radakovich has achieved an international reputation among connoisseurs of fine contemporary jewelry for the artistic integrity of his designs and his innovative use of materials. He trained in Europe as a painter, but after immigrating to the United States, he turned to crafts as his way of making art. While Radakovich is best known for his jewelry, he has also worked

Top right *Bracelet,* 14k gold, bone, silver 1980. **Opposite** *Necklace,* 1968. Photo: courtesy American Craft Council

Robert McDonald is now director of the Santa Cruz Museum. Marcia Lewis teaches metalsmithing at California University, Long Beach and is a practicing metalsmith





with other media, including wood, cast resin and metal. For Radakovich jewelry is art with utility. It incorporates all the formal qualities of sculpture, and yet it is also personal and transportable, an inclusive form of art.

Since 1965 Radakovich has developed away from traditional Renaissance shapes toward greater abstraction, which is, paradoxically, both more modern and more ancient. The strength of abstraction in Radakovich's work is not only in its formal, sculptural qualities, it is also in its potential for freeing the viewer's imagination from representationalism and from tradition, which while it nourishes development also inhibits it. Although one of the oldest, most richly associative and most conservative forms of art, jewelry was late in being adapted to the canons of modernity. Radakovich's designs are current with mainstream developments in contemporary art, toward reductivism, simplicity and restraint in embellishment.

While Radakovich uses traditional materials, such as precious metals and gems, he also uses found objects, like beach pebbles, and even space age alloys and computer parts in harmonious compositions that relate to the past and to the future. He ingeniously uses less precious, even base, materials which he ennobles through his craft. Ironically, the intrinsic value of such pieces is in what they represent as artistic statements, not in what they represent as ounces of gold or silver, and hence they are more enduring as art.

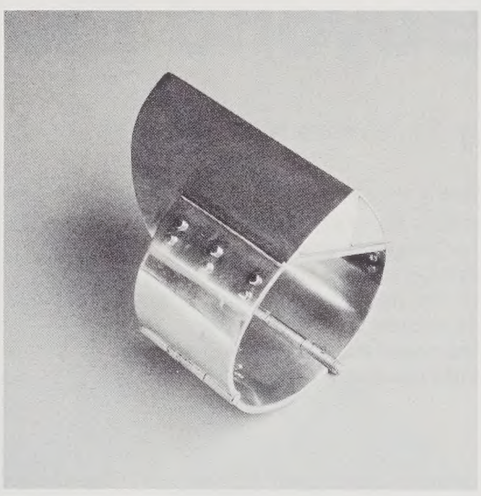
Part of Radakovich's esthetic as a contemporary artist is the candor with which he reveals process in his work. He begins with a basic design in mind but assembles his works intuitively, shaping the materials to his ideas but also responding to their characteristics. He exposes rivets and hinges that hold parts of pieces together, using them decoratively as well as functionally. Marks from hammering and oxidation from heating appear honestly, contributing to the total allure of the artist's pieces.

An additional and very personal convention is his creation of secret pleasures for himself and the owners of his jewelry. The inside of an ostensibly austere silver bracelet, for example, might be inlaid with richly variegated and irregularly shaped precious and semiprecious materials. The artist feels that this aspect of his work reflects nature, which hides as much, if not more, beauty as it flaunts—the inside of a shell, the underside of a leaf, for example. Only the creator of the piece and its possessor know of the hidden treasure, unless they consciously choose to share it with others. The presence of concealed jewels and decorations enhances the owner's sense of possessiveness of the piece and creates a lasting bond with the artist through the sharing of a secret.

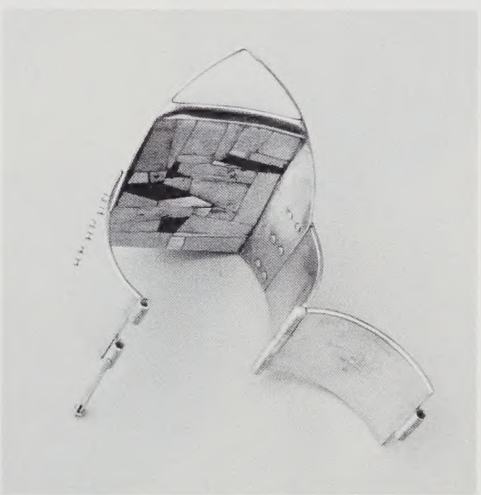
Svetozar Radakovich, while justly proud of his achievements as a premier craftsman, does not interpose his ego between connoisseurs and his art. Although the works are images of the man and of his evolution as an artist, they express their own autonomy. As Radakovich has stated, "Ten years, twenty years, a hundred years from now no one will care who made the pieces. What counts is the art. When you look at pieces from antiquity it's not important who made them. They exist." The confidence that his work will endure and be appreciated in the future is the artist's ultimate reward. His immediate satisfaction is the privilege of spending his life doing what he wants to do. ■

Pendant, forged silver and onyx, 1959. Photo: Charles Arnold, Jr., courtesy American Craft Council

Neckpiece, silver, 14k gold, bone, steel, opal, 1980

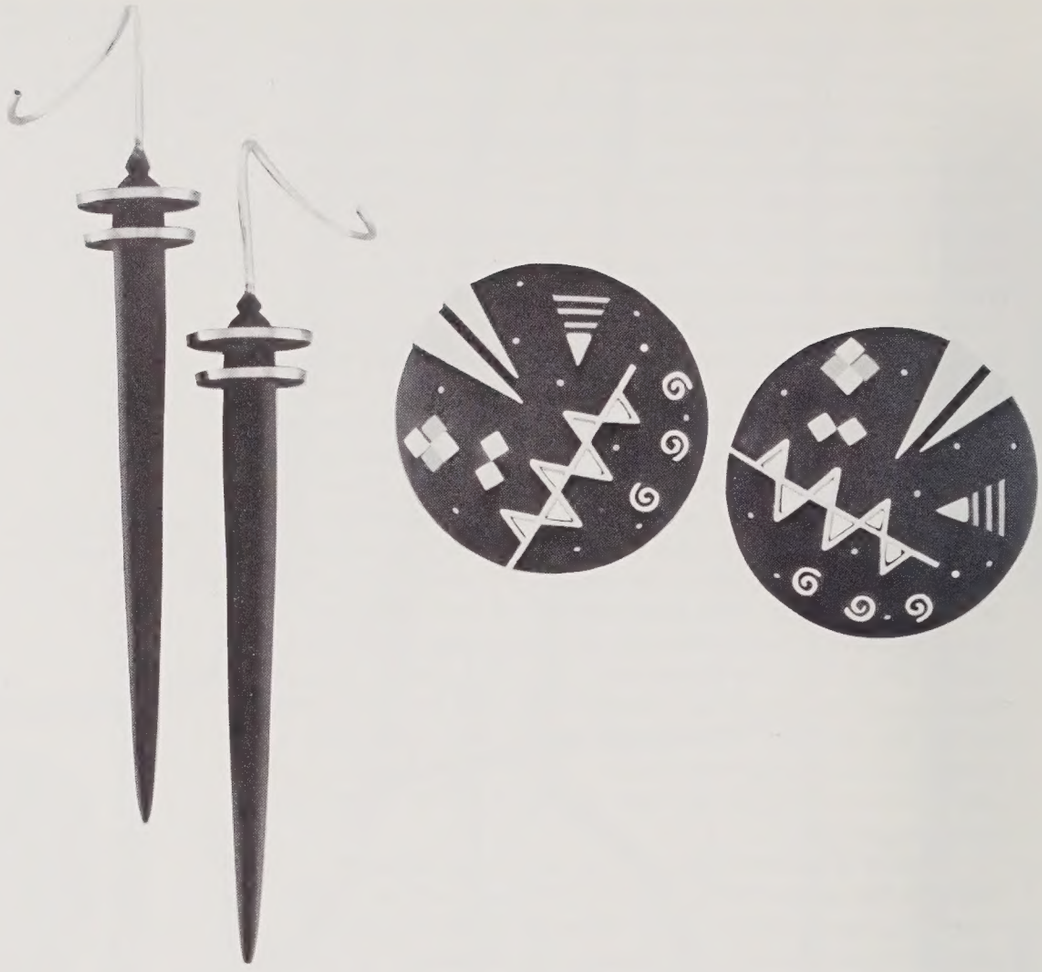


Bracelet, silver 14k gold, ivory, bone, lapis, 1979. Underside shown below



Opposite *Gate,* forged iron, 4x5′. Photo: courtesy American Craft Council

Business Name:
Cathleen Bunt Jewelry
Designer:
Cathleen Bunt
Description of Jewelry Line:
Jewelry at the high end of production; modern design which is often bold and geometric in silver, brass, black chrome or gold plating, gold, ivory, ebony and semiprecious stones. All work hand fabricated, except for casting. Has been selling a jewelry line for about two years; introduces a new group of pieces before each show—about three or four times a year.
Business Setup:
Solely owned. Employs two part-time workers, both from art metalsmithing backgrounds. Attends craft fairs and The Fashion Accessories Expo. Work has appeared in *Vogue* ***and*** *Harper's Bazaar.*
Education:
Studied art metalsmithing at SUNY, New Paltz.



Beyond the Bench

by Akiko Busch

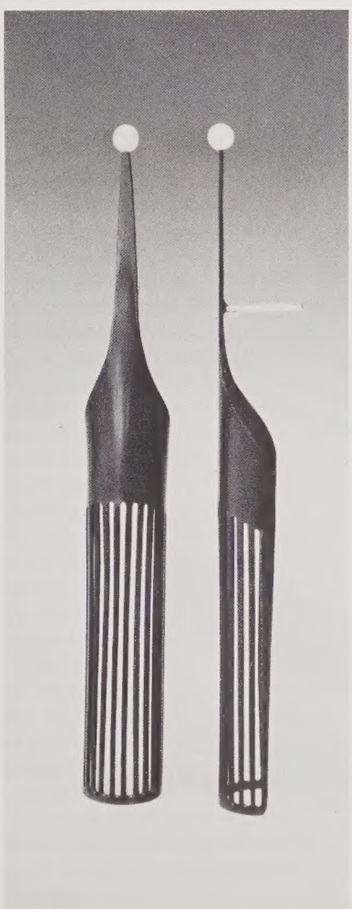
This is the second in a series of articles about production jewelers. This installment concentrates on design versus saleability, the incorporation of industrial techniques in a line of jewelry and preparation for running a small business.

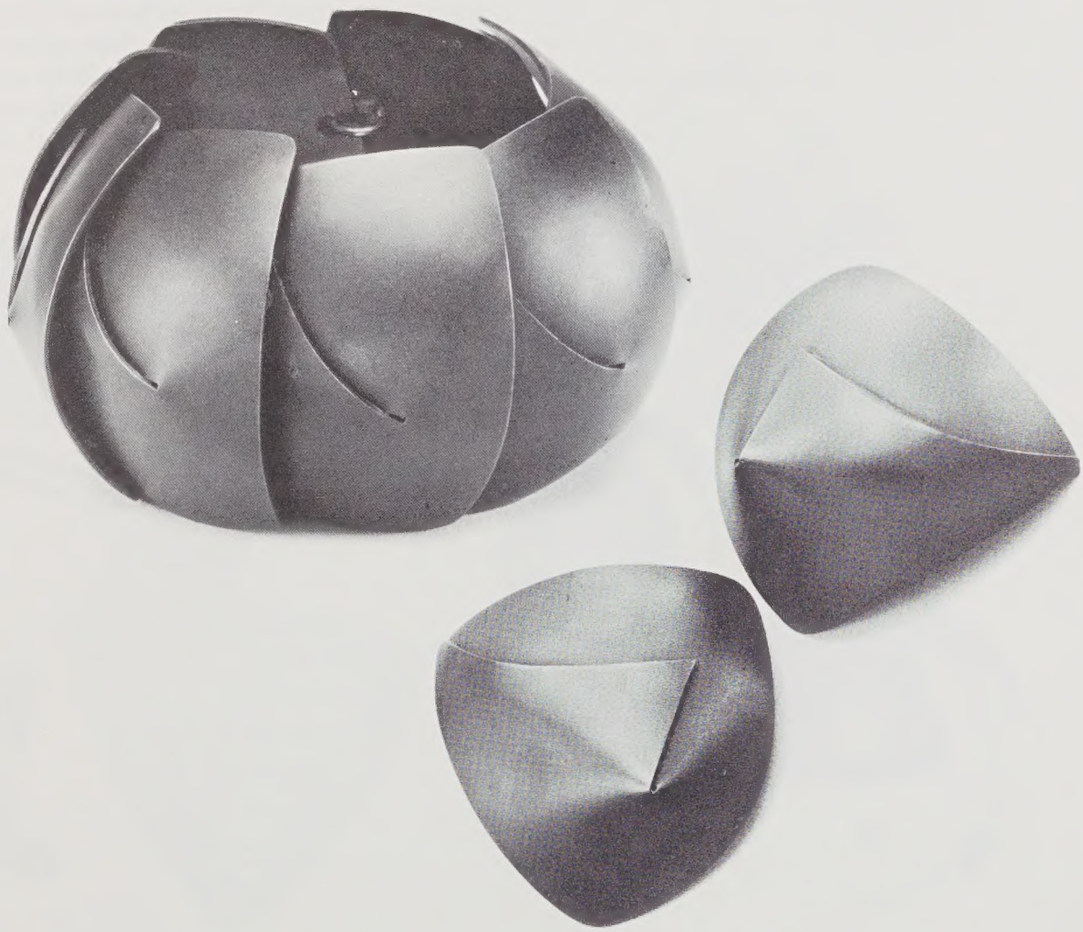
Most production jewelers will agree that financial compensation has been one of their greatest motives. Betsy Fuller, a jeweler in Hobe Sound, Florida, goes so far as to tell how, at the age of seven, she sold glitter paper rings on the sidewalk for two cents apiece, concluding that her present vocation "is destiny perhaps." Many will agree as well, however, on a less obvious incentive: The esthetics that evolve from the repetition of a single motif are often reward enough in themselves. Explains Jan Yager, a Philadelphia artist-goldsmith, "I have always worked in a series to completely run an idea through." And while she points out that repetition of anything from three to 50 times can complete an idea, the kind of exploration implicit in production opens avenues closed to the jeweler who limits his work to one-of-a-kind pieces.

Pam Levine, a New York jeweler, concurs. "Production jewelry is not always chosen for the sole reason of making money; it may also be viewed as a creative avenue." While production jewelry is often associated with the tedium of monotonous repetition, its flip, and less understood, side is that serial design implies a sense of continuity. Pieces that are part of a production line can suggest an evolution, a dimension lacking in one-of-a-kind pieces.

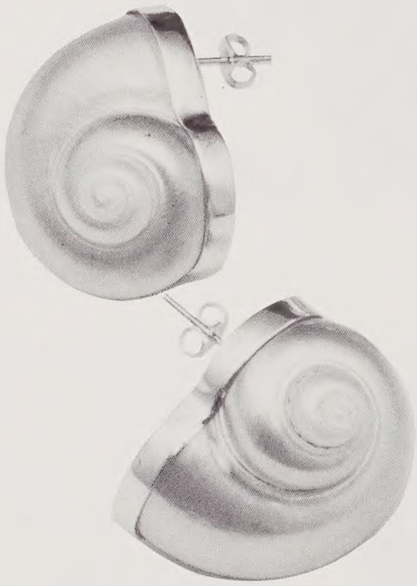
Production jewelry also, by nature, tends to acknowledge industrial techniques. And herein lies another dimension which distinguishes it: Although industrial techniques may first be adopted for their cost and convenience in making creative impulse material, the reverse often holds true as well. That is, industrial techniques often wind up as the very inspiration themselves. While some jewelers are reluctant to actually find these techniques "inspiring"—Sean Gilson of New York finds technique "just another tool" and explains that he designs with virtually no regard to the manner of execution—most do acknowledge instances in which techniques have motivated design. Yager points to the embossing processes she employs "which I first saw being used by a company which made embossing dies for Valentine cards.

Business Name:
Pam Levine Designs
Designer:
Pam Levine
Description of Jewelry Line:
Both high fashion and art jewelry, which has been described as everything from classic Japanese motifs to contemporary New Wave design. Made from sterling silver and brass electroplated with black chrome, silver or gold plate. For many pieces the metal shapes are cut out by machine or chemically etched by outside contractors and then folded or manipulated by hand to fit the design. Has been selling a jewelry line for three years; changes the line a minimum of two times per year, removing or discontinuing certain items and adding others.
Business Setup:
Solely owned. Has two employees, one full time, trained in industrial arts, and one part time, trained in traditional jewelry in Japan and commercial jewelry in the US. Attends Rhinebeck and the Fashion Accessories Expo and employs a sales representative to visit fashion, museum and boutique shows. Advertises in fashion magazines and has been given editorial coverage in them.
Education:
Served apprenticeships and attended Pratt Institute while employed as a jeweler at Cartier.





Business Name:
Betsy Fuller
Designer:
Betsy Fuller
Description of Jewelry Line:
High fashion, simple, graceful, wearable jewelry—artistic but not outlandish in 14- and 18k gold, silver, pearls, seashells and beachglass, all fabricated by hand. Has been selling a production line for 12 years. Many items in line stay two to three years; adds to them often, but never makes an entire change in the look.
Business Setup:
Solely owned. Makes all pieces by hand herself. Sells through galleries, department stores, museum shops; produces an elegant color catalog with price list; attends JA shows and advertises in JC-K classified column. Work has appeared in fashion magazines—WWD, New Woman, New York—but does not seek out such coverage.
Education:
Took only one college-level jewelry course as MSU; studied at Haystack two three-week sessions in jewelry.

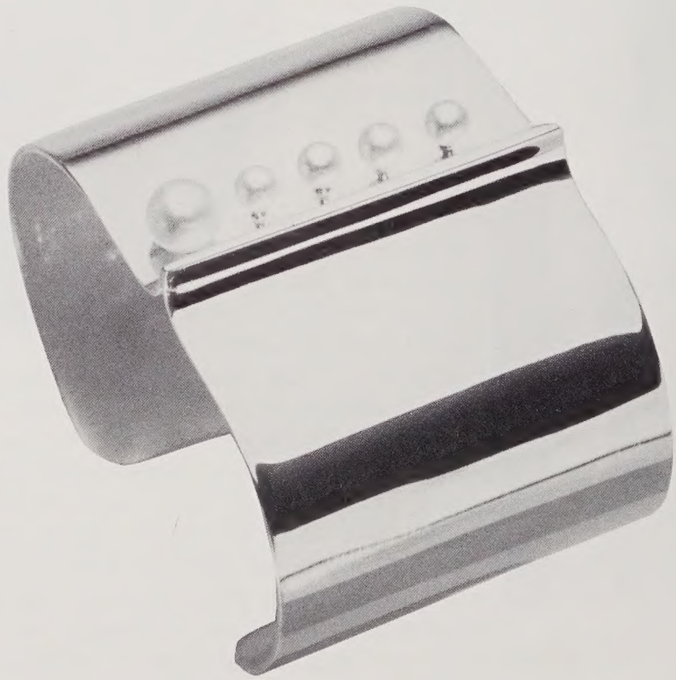


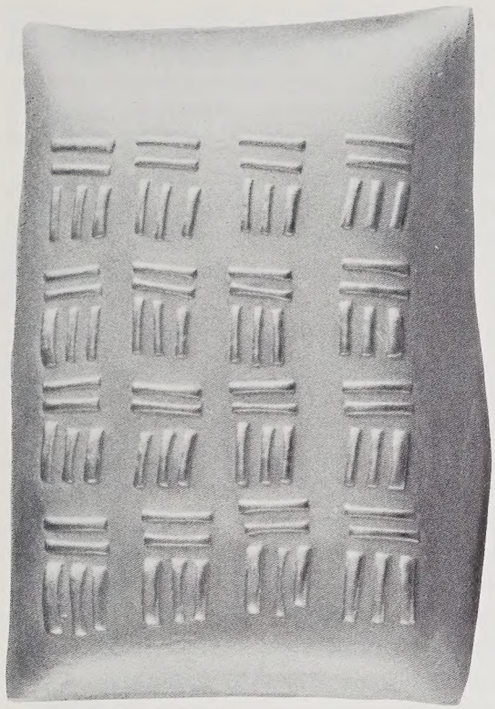
And having lived in Providence, Rhode Island, the world capital of costume jewelry, she adds, "I couldn't help being influenced." And Cathleen Bunt, another New York jeweler, admits that it was the anodized aluminum that inspired her pieces incorporating aluminum, ivory and stones. An industrial process, concludes Levine "can be stimulating if one is creative enough to push it beyond its limits." In her case, black chrome plating and chemical etching permitted her to develop detailed pattern pieces that could not otherwise have been produced in quantity.

What Levine is also pointing out is that the production jeweler can look to the pragmatic side of his work for creative input. "While my first line," she explains "was a result of instinctual design, I realized that my work must be practically produced—cost-conscious—and still maintain consistent ideas. The folded shapes that evolved solved production problems while providing a creative base." The lesson, though it may be obvious, bears repeating: Industrial materials and processes are not simply the means with which to execute design but are creative resources in themselves.

Another point of agreement among most of these artists is in the kind of education they found available. Yager establishes that "a broad background in art history and various art media" provided a wealth of resources. Others concur that past education most valuable to them now are the art courses which exposed them to media and expressions they might not otherwise have encountered. Second in importance are the technical skills learned in workshops. Nevertheless, all agree that their backgrounds did not sufficiently expose them to the practical business skills that are as vital to their professional success as creativity at the bench. And, as might be suspected, the illiteracy that ensued fostered one of the most difficult problems that greets most of these jewelers: While maintaining cash flow may be elusive enough in itself, it is often even more difficult just to keep track of where the cash is. Simple bookkeeping and paperwork can consume much of the time that they had hoped to spend at the bench. Most of these jewelers will agree with Gilson who recalls that it was "experience and hunger" that best provided him with business training.

The exceptions seem to be in the cases where jewelers apprenticed or worked for another studio or gallery before going into business for themselves. For example, Levine's tenure in the commissions and repair department at Aaron Faber Gallery and later position as a product developer at Cartier both taught her how to seek out contractors through industry trade publications. Or Bunt, who picked up her "speed and precision" by working for another craftsman. Or Gilson who apprenticed as a benchworker for a year. The point seems to be that while most jewelers who choose to do production work do so precisely because it allows them to work independently,





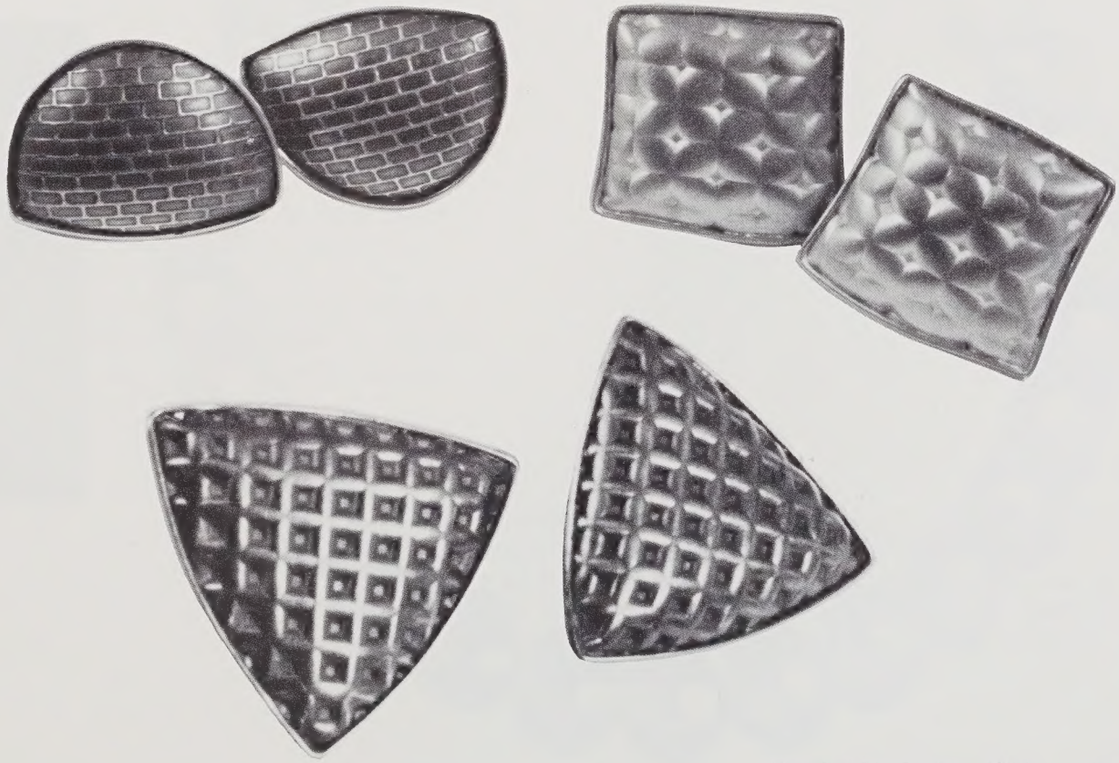
apprenticing first or working in a gallery can offer a fast course in business know-how that might otherwise take years to pick up.

Still, it is only fair to point out that not many production jewelers actually went to school below the graduate level with that career in mind. Had they done so, they might have tailored their curriculums to include more business courses. Fuller, for example, had entertained notions of becoming a psychiatrist or oceanographer. While her work is certainly a rich reflection of her fascination with marine forms, one would not expect that interest to propel her toward business courses. Likewise, Gilson had considered becoming an aeronautical engineer. Like the art courses these jewelers found so valuable, these interests are what has provided the imaginative scope and power of their work. They lay the foundation for a personal and esthetic vocabulary later translated in precious and nonprecious materials. And though they could be what discouraged these jewelers from business courses, the less tangible information they did provide is surely as valuable.

Jewelers who did study metalsmithing at a graduate level and in subsequent workshops also found, unfortunately, that the practical side of the profession was rarely addressed. Most agree with Yager who says, "Schools could and should offer more exposure to business practices and philosophies. Artists, like lawyers and doctors, are ready for some undiluted advice on survival and flourishing." Bunt is more specific, advocating that jewelry departments in art schools offer courses in how to deal with sales reps, billing, crafts fairs and photography.

As much a problem as cash flow and bookkeeping is marketing. Marketing techniques appear to vary with the individual. What makes sales for one only costs time for another. While Fuller advocates personal contact with retailers—"Go in. See them. Show them your work. Take them to lunch. *Help.*"—other jewelers find that this personal approach is costly in time and energy. Yager describes an ideal sales rep as one who is "sensitive to my work and goals, willing to create or seek out the markets I am looking for . . . one who looks for quality work without quickly changing taste and who understands and shares my esthetic and looks at jewelry as more than just merchandise . . . one who presents the image I want to present but perhaps even better than I am able to." Not surprisingly, she is still looking for this rep. Most jewelers, though, find themselves somewhere in between learning how to be their own best rep and finding the perfect rep with a set of cloned esthetics. That is, a successful marketing program can be determined by how a jeweler is able to juggle maintaining personal contacts through correspondence, phone calls and personal visits and delegating responsibilities to reps and retailers he has discriminately selected. ■

Business Name:
Jan Yager
Designer:
Jan Yager
Description of Jewelry Line:
Distinctive, collectible jewelry of precious materials which is tactile, pleasing to feel and wear and of lasting quality and design, produced mainly in sterling silver and some 18k gold or brass and nickel combinations. All embossed hollow forms. Has been selling a jewelry line for 10 years; work evolves and builds on previous work—line has changed from emphasis on brooches to emphasis on earrings.
Business Setup:
Solely owned. One or two part-time employees work on occasion—most have an art background. Attends craft fairs and trade shows; advertises through newspaper ads and mailings. Work sold in stores, shops galleries and museums and shown in *Mademoiselle* ***and*** *Vogue* ***magazines.***
Education:
Received BFA from Western Michigan University and MFA from Rhode Island School of Design.

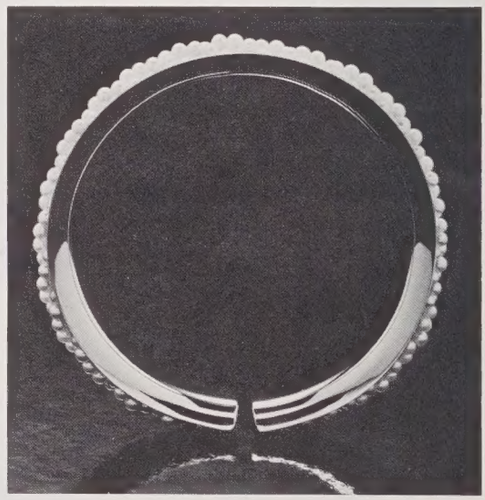


Jewelers also have had mixed experiences with (and feelings towards) editorial coverage in fashion magazines. Some find that it is a helpful marketing tool only when done on a regular basis. Fuller adds that the results are elusive: Because coverage rarely results in specific sales, it is difficult to ascertain exactly how many sales actually result from it. Gilson is far less ambivalent. Asked whether he had found it worthwhile, he unequivocally states, "No. Headaches. Broken and lost jewelry." Patient and forgiving jewelers, however, will probably agree in the end with Yager who shrewdly points out that "exposure never hurts and usually helps, somehow, somewhere along the line."

From the points mentioned above, it is not difficult to see why most production jewelers, when asked of their long-range plans and aspirations, tend to answer in terms of pragmatic business goals rather than of creative goals for their work. Bunt speaks of having more people trained to do her production work, giving her the time, ironically, to do more one-of-a-kind pieces; Levine of artisans trained in her quality and design theory and a business staff to promote the work, both of which would allow her more time to design. Perhaps Yager again speaks for all when she says "I hope to give the marketing aspects to a sales rep and have a bookkeeper. I can't guess what my work will look like, though I do hope it demonstrates five years of growth."

"I went to grad school with two aims," she continues. "To develop further as an artist, both esthetically and technically, and to somehow figure out some method of working that would allow a more viable means of living." While most production jewelers have found that the latter presents by far the most imposing challenges, it is for the rewards of the former that they continue to meet these challenges. And these rewards are perhaps best summed up by Pam Levine: "I chose production jewelry for the constant demands to create new ideas and successfully incorporate them into the marketplace. I like knowing that production enables more than one person to enjoy a specific design. And I want to feel that my work is connected to a specific facet of the vast design community. There are those who view production jewelry as a compromise where nothing creative or quality-oriented can survive. To me, that is not a limitation, but a challenge." ■

Business Name:
Gilson Designs
Designer:
Sean Gilson
Description of Jewelry Line:
Fine, well-designed jewelry that is very wearable and classically fashionable in gold, platinum, silver and stones. Has been selling a production line for two years and the line has moved to the higher end of the jewelry scale through original design. Structural techniques range from centrifugal casting to sheet metal forms, forging and blacksmithing and varying enameling techniques. Line is augmented with new pieces.
Business Setup:
Solely owned—part-time workers on occasion; prefers artists as workers as opposed to commercial jewelers. Sells in jewelry stores, attends JA shows.
Education:
Studied at Bowling Green State University and at Washington University; year apprenticeship as a benchworker.



Rendering Design and Process

by Richard Palermo and Alfred Durante

This is the second in a series of articles on the art and skill of rendering jewelry and small metal objects. Here we show the stages of rendering from pencil roughs to finished pencil renderings with color to full-color renderings, and discuss the importance of rendering for the jewelry designer.

In the first article of this series (see *Metalsmith* volume two, number four), Alfred Durante, design director at Cartier, discussed the role of the designer in the jewelry industry. Here both Mr. Durante and Richard Palermo, professional jewelry renderer-designer and fellow teacher of design and rendering at Parsons School of Design, have contributed rough and finished renderings to demonstrate process.

In the classes they teach, Durante and Palermo stress that from the beginning students must create original designs, even before they acquire any rendering techniques. They believe that you learn rendering not in order to express someone else's designs but in order to present your own designs in a quick and realistic manner.

Rough pencil sketches with earring shown in three styles. The sketches demonstrate possible positioning of the stones to develop movement in the design. From the sketches the most appealing shapes can be judged and chosen before painting. These finished roughs are usually only for the designer's own use, but on occasion he will show them to a client. Richard Palermo

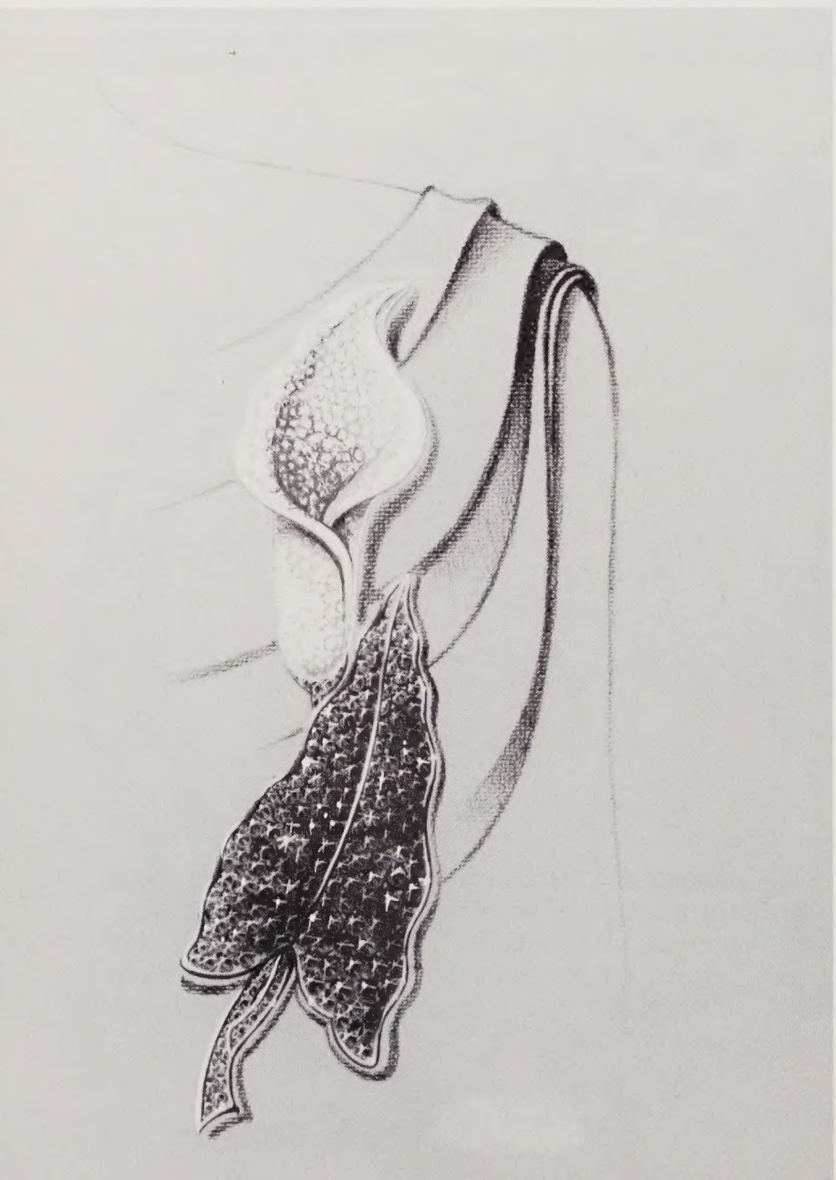
Finished rendering is taken from the most suitable pencil rough, traced in pencil onto heavy vellum and painted with watercolor and gouache. The earring is shown on a stylized ear to indicate placement of the clip, size, weight and balance, or how the earring will hang without turning. Richard Palermo

Rendering, as taught by Palermo and Durante, utilizes only a mechanical pencil with graphite, watercolor and gouache, and a stump for shading. They sometimes use colored pencils or ink washes. Final renderings are done in heavy transparent vellum.

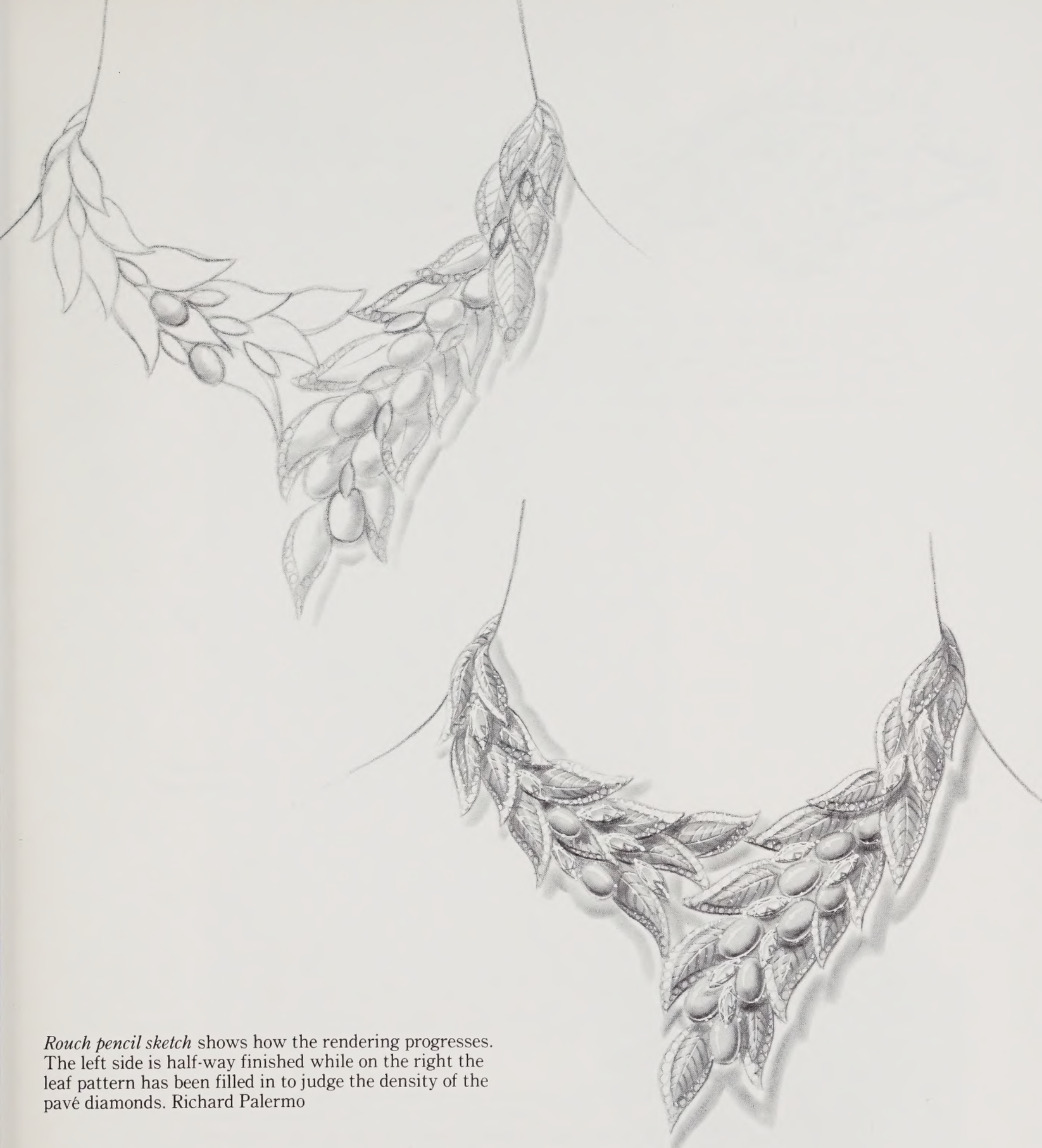
Years ago jewelry houses had two or three designers who could take the leisure of a few days for each design. But due to the rapid pace and competitive nature of the field of jewelry design today, speed is of the essence. Everything is last minute. Now many jewelers are doing renderings as prototypes; no longer are stones set in a wax model, for instance, for the client to inspect. Rendering is a form of photorealism where nothing exists to be photographed, except, of course, in the designer's imagination. In this, rendering becomes the most difficult kind of illustration, as one must show exactly how a piece will appear its highlights and minute detail to a fraction of a millimeter.

A rendering is developed with three major considerations in mind: the design of the piece, the characteristics and cost of the materials, and the way the piece will look when worn. To be a successful renderer, you must know the mechanics of jewelry—how pieces are made, how they move with the body when worn and the value of materials. It would be useless to render a necklace, for example, with a large diamond that the client could not afford. You must further be aware of jewelry esthetics, good taste and the current climate for jewelry, including what will sell. Beyond this you must show individuality in your designs and an understanding of your clients' needs.

It is remarkable that most of the renderings shown here were executed, from rough sketch to final painting, in only a few hours. However, the authors insist that a good rendering should look like it took a week but should never appear overworked. Acquiring the art and skill of rendering can help a young jewelry designer advance his career without having to make heavy investment in materials and speculative execution. In this era of rapidly changing fashion trends and ever-growing competition, this is important to consider.

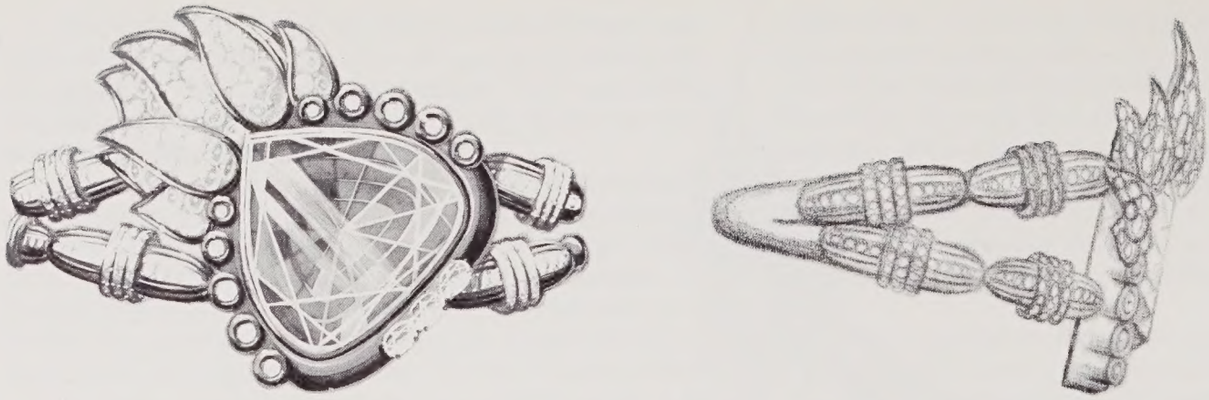


Rendering of pavé diamond and emerald lily brooch for the exhibition "Fantasy Jewels." Alfred Durante

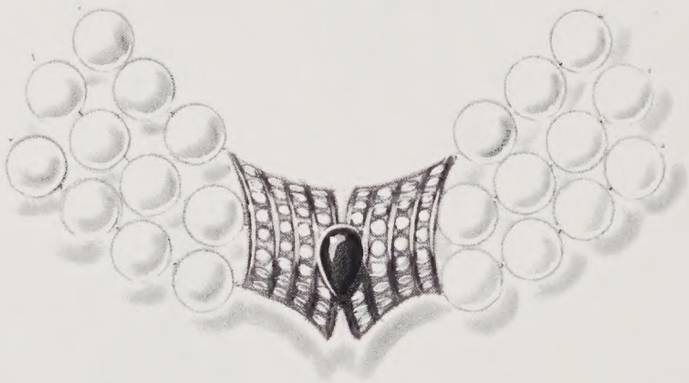


Rouch pencil sketch shows how the rendering progresses. The left side is half-way finished while on the right the leaf pattern has been filled in to judge the density of the pavé diamonds. Richard Palermo

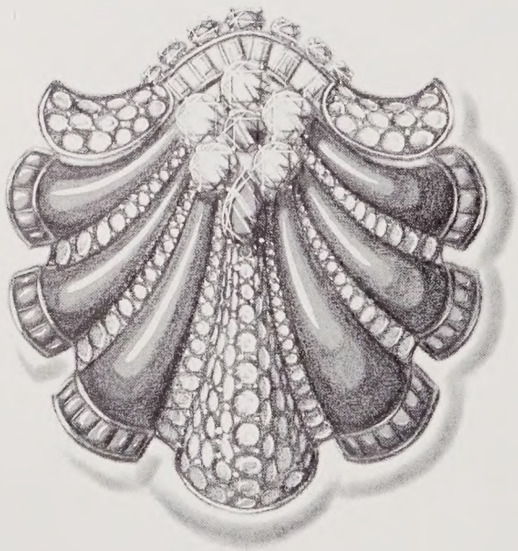
Finished rendering shows color over the pencil sketch. Note how the stones seem to glow by the shading done with a stump. This necklace, part of a set with the earrings above, boasts cabochon-shaped turquoise and both marquis and pavé diamonds set in 18k yellow gold and platinum. It was designed to be flexible with flamboyant leaves to show intricate detail in the rendering. The necklace is shown on a stylized neck to indicate position on the body and scale. Richard Palermo



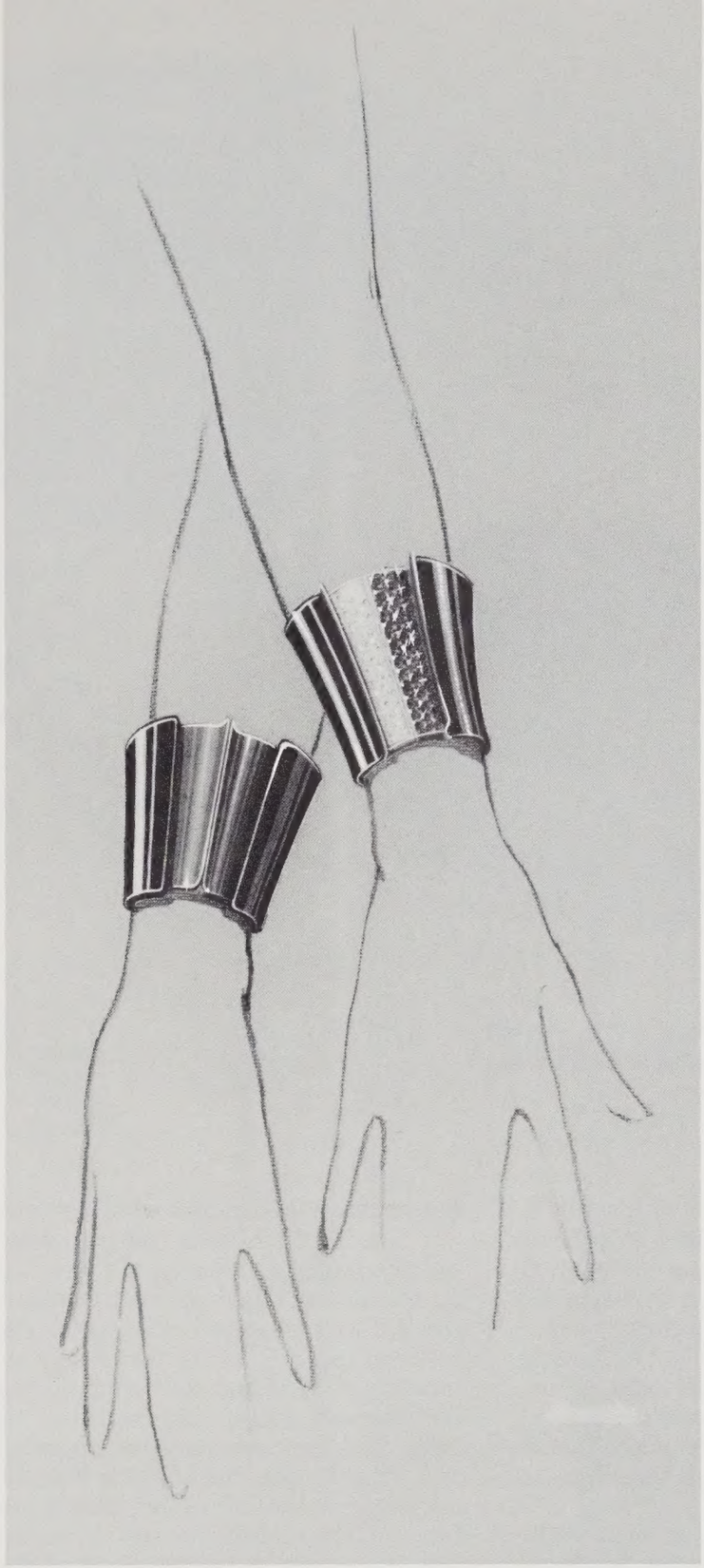
Rendering of a bracelet with pear-shaped aquamarine set in 18k yellow gold with pavé diamonds set in platinum, three oval diamonds and bezel-set diamonds. This rendering shows two views—the fully painted top view and the pencil side elevation. Richard Palermo



Rendering of a cultured pearl necklace with channel-set diamonds and a cabochon-shaped ruby in 18k yellow gold. Richard Palermo

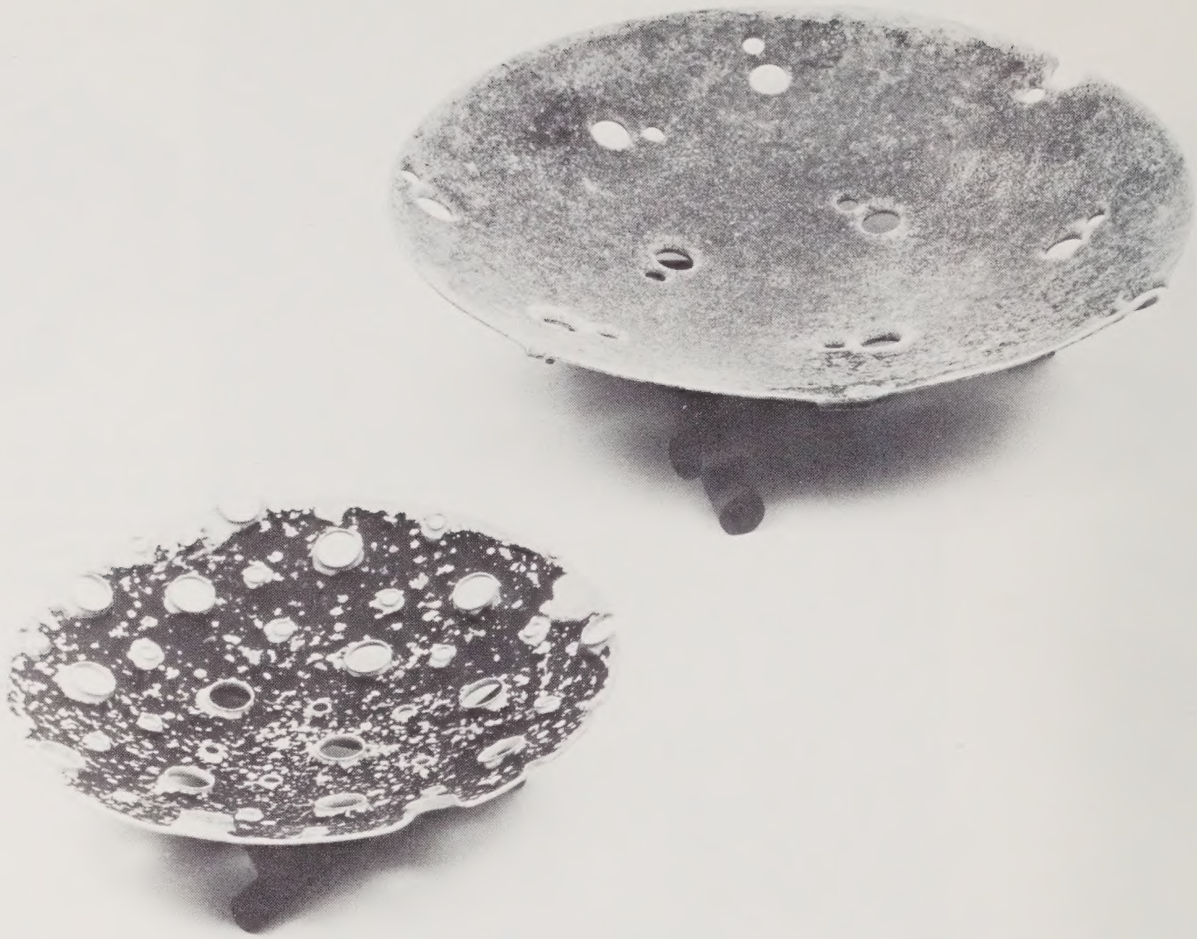


Rendering of a brooch with one round sapphire and pear-shaped and French-cut sapphires as well as round, baguette and pavé diamonds set in platinum and 18k yellow gold. Richard Palermo



Rendering of gold and enamel cuff bracelets with pavé diamonds and rubies. Bracelets may be worn day or evening—the panels slide back to expose the stones, from "Fantasy Jewels." Alfred Durante

Rendering of a pin-pendant with a 100k square-cut aquamarine set with pavé diamonds and yellow-gold flames. Richard Palermo



Jonathan Bonner
Whimsy and Vision

by Tim McCreight

Plates, fumed copper, wood, largest 20″ d. Photo courtesy: Convergence Gallery, NYC; **Opposite** *Weathervanes.* Photo: Douglas Dalton

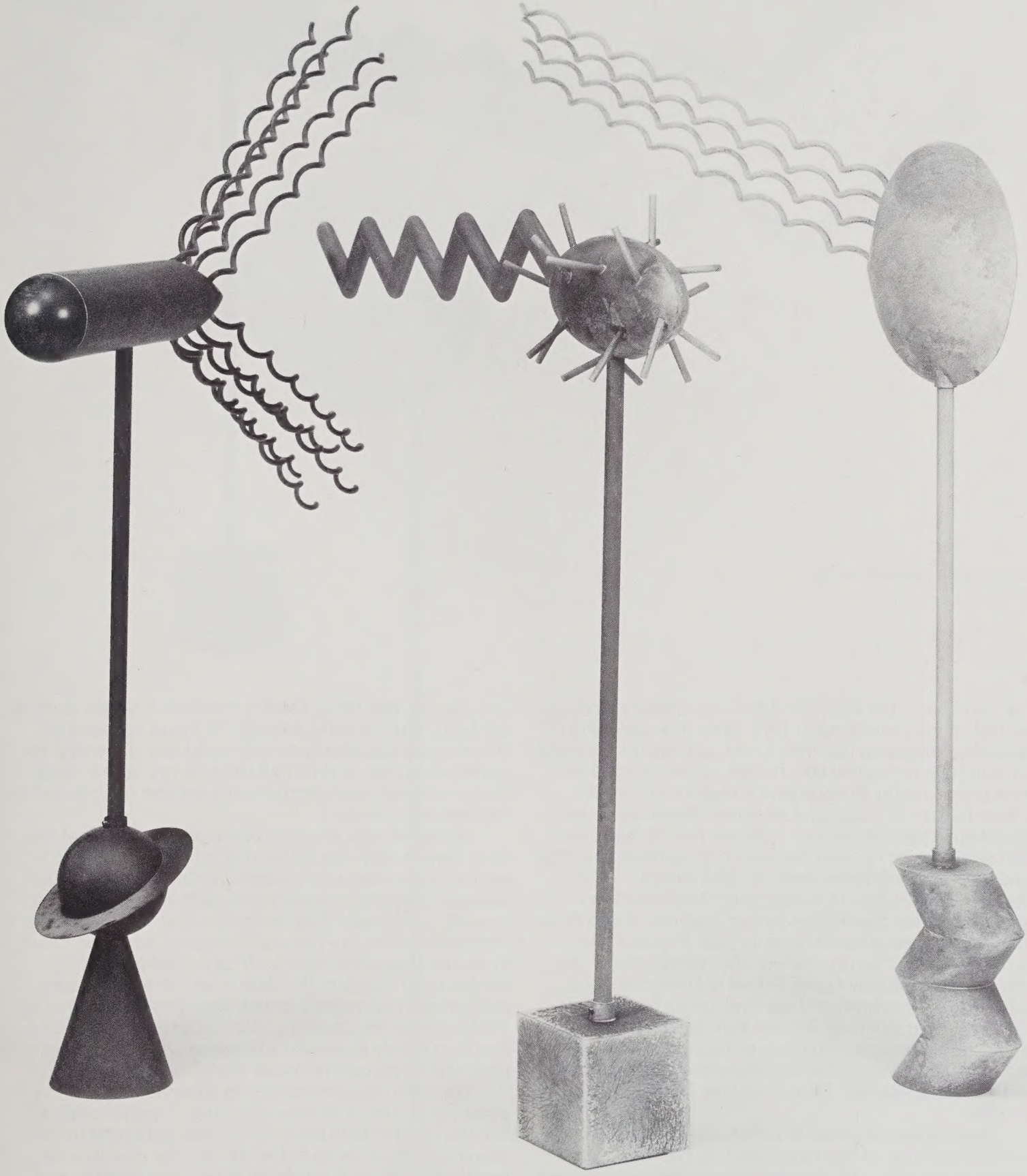
Jonathan Bonner is a pleasant young man with a quick smile and an easygoing manner. If you saw him in the grocery store you might think he was a teacher or a doctor. If you walked by his house in an older, well-kept section of Providence, you probably wouldn't guess what was going on in his third-floor studio. What's happening up there at the moment are some pretty outrageous weathervanes. Besides being an unusual object for a metalsmith to undertake, these large-scale pieces sparkle with a whimsy and originality that make a lasting impression.

This series of work has sprung from a simple beginning. On a visit to his parents' summer home, Jonathan's father hauled in from the barn roof a broken weathervane and asked if "my son the metalsmith" could fix it. The piece was beyond salvage so Jonathan instead made a die-formed salmon-shaped vane for his father, who is an avid fisherman. Intrigued with the possibilities, Jonathan made another, this one a little more abstract. And another, and so on. This past fall there were two one-man shows of the vanes; at Neiman Marcus Gallery in San Francisco and at The Hand and the Spirit in Scottsdale. By then the series totaled about 45 pieces.

The technology behind this work is impressive. Each weathervane swings on a ball bearing and is weighted with lead shot to perfect equalibrium. Jonathan describes "sail area," "fulcrum offset" and so on with the casual air of somebody who knows what he's doing.

The metalsmithing techniques he uses are as traditionally rooted as the idea of a weathervane itself. Familiar techniques like dapping, scoring and raising are worked with an experienced hand. The assembly is silver soldered together and given a rough surface with a combination of hand and disk sanding. Patinas are then meticulously applied and are coated with a film of wax. Several of the vanes have been purchased for use indoors and while he does not object to this, Bonner nevertheless sticks to a no-nonsense code that an object designed to function should function well. Consistent with this attitude, these objects will stand up to the winds they are intended to describe.

The weathervanes were preceded by a series of richly colored decorative bowls in copper, brass and aluminum. These shallow perforated shapes are reminiscent of membranes. Each of them is poised on a cluster of wooden rods or cones that are painted to enhance the colors of the piece. Although the weathervanes are of first importance at the moment, the bowl series has not been concluded. The most recent pieces approach closed containers, one of which is a hollow sphere with many portholelike openings. The first version of this was about 10 inches in diameter, but another 30-inch sphere has been commissioned by Convergence Gallery in New York, where Bonner has had two solo shows.



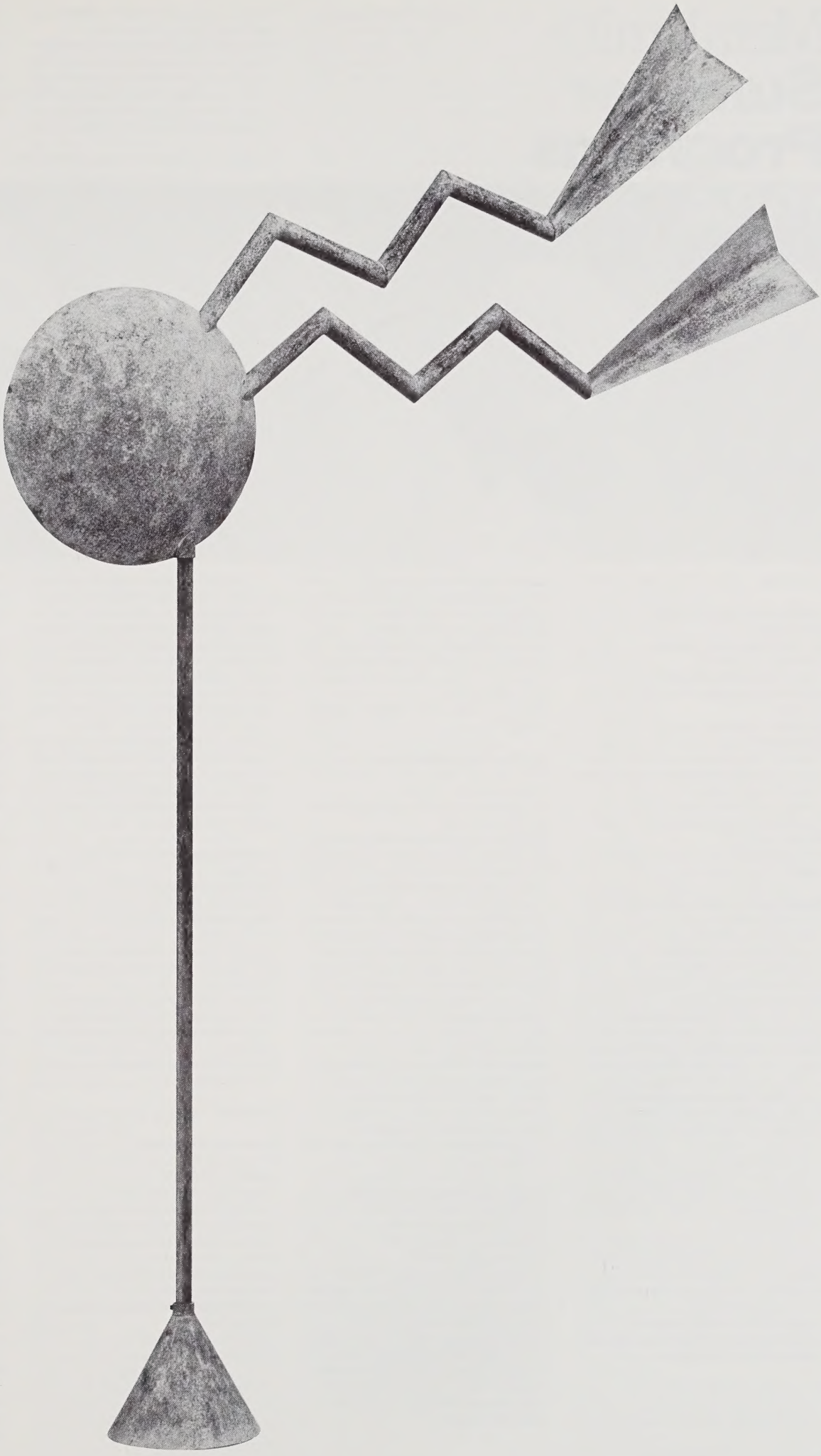
Weathervanes. Photos: Douglas Dalton

Jonathan's life went through a few changes before he settled on metalsmithing in 1971. After a couple years of knocking around on the West Coast, in a manner brought to perfection in the mid-60s, Bonner happened by chance to wander into the Philadelphia College of Art one day. There he met Ed Zucca and Alphonse Mattia and began friendships that continue to be important. He was immediately intrigued by what he saw in the woodshop at PCA and soon enrolled; he received his BFA there in 1971. Some elective classes in metals with Olaf Skoogfors showed him the possibilities in that medium. It was there that Bonner saw slides of work by Jack Prip and was attracted by its "beauty, variety and completeness." He went on to the Rhode Island School of Design to study with master woodworker Tage Frid and to be near Jack Prip. After one semester he switched majors. "For me the switch from wood to metal was no big deal. Either way I was coming up with ideas for objects and making them with the same hands." He received his MFA from RISD in 1973.

After graduate school Jonathan and his wife, metalsmith Jackie Ott, moved to a suburb of Providence and began paying dues. The occasional commission didn't pay the rent, so Jonathan and Jackie took on piecework soldering for the jewelry trade. "We'd start each day with a 50-ounce coil of wire solder hung over a shoulder; by the end of the day it would be gone. The work was pretty lucrative, but the best thing about it was that it taught us how we didn't want to make a living." It lasted six months. When Jackie put together a successful line of jewelry, the couple was ready to invest all their energy in that. Jonathan continued to do commission work and contributed to the jewelry business.

Along the way Jonathan developed a business of his own. Bonner plays the fiddle as a hobby and intended to make an instrument for himself. He discovered the need for small finger planes of specific sizes and shapes, which he made for himself. The few extras that he made at the time sold and led to a full-scale business. Advertisements in several magazines have built up a clientele of woodworking tool suppliers that buy from 700 to 800 planes each year. By spending a couple days a week finishing up the brass castings, grinding plane irons and filling orders, Jonathan is able to sustain a business whose stability underwrites his gallery-bound work.

Bonner's work represents an important leap in the evolution of American metalsmithing. Together with a handful of other craftsmen he has moved beyond the self-concerned raised forms of the 50s and the unrestrained jewelry of the 60s. A synthesis of technical control, and vision has yielded a style that will serve as a valuable milestone for the next decade. All of us in the field are fortunate to have the talents of people like Jonathan Bonner to help us mark our collective progress. ■

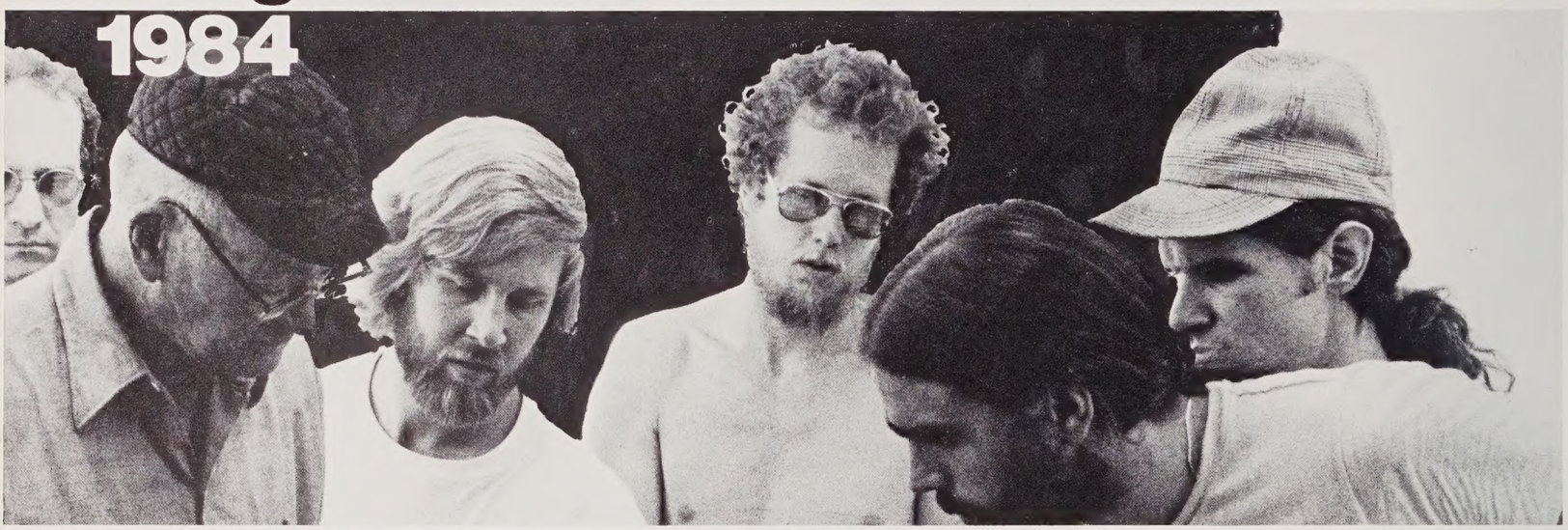


Metalsmith **Summer Programs 1984**

This is our fourth annual summer workshop listing of courses in metalsmithing, jewelry and related fields. As we go to press, much of the information given here is tentative or to-be-scheduled. Therefore, do write or call for verification of workshop themes, instructors and dates.

Because enrollment is limited in many programs, we suggest you make reservations early.

We hope this section will be of help to those interested in pursuing studies in metalworking over the summer.



California

California College of Arts and Crafts
5212 Broadway at College
Oakland, CA 94618
Telephone (415) 653-8118
Ellen Jouret, Dean of Extended Studies
Summer Program June 25–29, The Enameled Image; July 2–6, Special Jewelry Techniques; July 9–13, Titanium & Niobium Jewelry; July 16–20, Production Power
Instructors Kay Y. Yee, David LaPlantz, Florence Resnikoff, Anne Krohn Graham
Accommodations Limited dormitory space

Gemological Institute of America
P.O. Box 2110
1660 Stewart Street
Santa Monica, CA 90406
Telephone (213) 829-2991
Zavella Jacobson, Office Manager
Summer Program May 3–June 22 and July 5–August 24, Jewelry Design Resident Program; June 4–July 20, Hand Engraving Resident Program; May 7–11, June 9–13, September 24–28, Jewelry Repair; May 14–18, July 16–20, Basic Stone Setting; May 21–25, July 23–27, Advanced Stone Setting; June 25–29, Jewelry Design; June 4–15, August 6–17, Wax Modeling and Casting; July 9–20, September 10–21, Basic Gem Cutting; September 24–October 19, Advanced Gem Cutting; July 26–27, Pearl and Bead Stringing.

One-day Platinum Workshops: June 16, Philadelphia, PA; July 14, Hartford, CT; August 4, Detroit, MI; August 25, Chicago, IL; September 15, Kansas City, MO
Instructors To be announced
Accommodations Some housing available; call for information

Laguna Beach School of Art
2222 Laguna Canyon Road
Laguna Beach, CA 92651
Telephone (714) 497-3309
Summer Program June 25–September 1. Enameling and Jewelry
Instructors Correen Kaufman and Molly McGuire
Accommodations Hotels and motels in area

Jewelry Tech Institute, Inc.
7271 Garden Grove Blvd., Suite F
Garden Grove, CA 92641
Telephone (714) 897-0935 or 0930
Marilyn Ravanal
Summer Program May 29–June 7, Rendering; Hand Engraving; June 4–7, Beginning Faceting; June 11–14, Soldering; Intermediate/Advanced Faceting; June 18–21, Beginning Stone Setting; June 25–28, Advanced Stone Setting; July 9–14, Rendering; July 9–12, Beginning Faceting; July 16–19, Intermediate/Advanced Faceting; July 23–August 2, Hand Engraving; July 23–26, Rubber Molding & Wax Injecting; July 30–August 2, Beginning Stone Setting; August 6–9, Advanced Stone Setting; Soldering; August 13–16, Beginning Stone Setting; Beginning Faceting; August 20–23, Advanced Stone Setting; Intermediate/Advanced Faceting
Instructors To be announced
Accommodations Hotels and motels in area

Revere Academy of Jewelry Arts
760 Market Street, Suite 937
San Francisco, CA 94102
Telephone (415) 391-4179
Alan Revere, Director
Summer Program June 10–August 20. Workshops in Anticlastic Raising with Michael Good; Working and Coloring Titanium with Edward deLarge; Design Development through Forging with Helen Shirk; Basketry Techniques for Metal with Susan Wood-Onstad; Design and Creativity with Alan Revere; Marketing your Line with Alan Revere.

Regular classes in Casting, Diamonds, Engraving, Forging, Forming, Gem Identification, Goldsmithing, Granulation, Jewelry Repair, Photography, Refining Precious Metals, Rendering, Rubber Mold Making, Sales Techniques, Stone Setting and Wax Techniques
Instructors George D. McLean, Keith Bartel, Paul Christensen, Michel Royston, Barry Blau, Ed Friedman, Craig Gamble, Yvette Rutledge, Dawn Nakanishi, Carolyn Moniz, Celia Kuitunen and Si and Annie Frazier
Accommodations Hotels and residence halls in town

International Summer Seminar
Art Dept.
San Diego State University
San Diego, CA 92182
Telephone (619) 265-6511
Arline Fisch
Summer Program June 24–July 7. One session in advanced jewelry and enameling
Instructors Jewelry—Wendy Ramshaw and Arline Fisch; Enameling—Joann Tanzer and an enamelist from Japan
Accommodations Available in university housing

Colorado

Dunconor Workshops
P.O. Box 17324
Denver, CO 80217
Telephone (303) 295-0419
Summer Program June–August. Two-week sessions in design, production techniques and advanced jewelry techniques
Instructors Harold O'Connor and Randall Gunther
Accommodations Lodging, cabins and camping

Summervail Workshop
Box 117
Minturn, CO 81645
Telephone (303) 827-5703
Summervail Workshop Gallery: (303) 476-7757
Susan Whitmore
Summer Program June 18–August 10. One-week workshops in enameling, general metalsmithing, blacksmithing and sculpture
Instructors Jaime Bennett, Dale Eldred and others
Accommodations Camping areas and local hotels

Connecticut

Brookfield Craft Center
P.O. Box 122
Brookfield, CT 06804
Telephone (203) 775-4526
Summer Program May 19–20, Pewtersmithing Techniques with James Seavey; June 2–3, Chasing and Repoussé with Barbara Minor; June 18–22, Color in Jewelry with David LaPlantz; June 30–July 1, Plastics for Metalsmiths with Peter Handler; July 2–6, Advanced Knifemaking Techniques with Alf Ward; July 16–20, Basic Metalsmithing Techniques with Barbara Minor
Accommodations Local bed and breakfast, hotels, motels and campgrounds

Creative Arts Workshop
80 Audubon Street
New Haven, CT 06511
Telephone (203) 562-4927
Deborah Weaver
Summer Program Mid-June–July. Two six-week classes in jewelry and metal sculpture
Instructors Ed Warner and Ann P. Lehman
Accommodations Hotels in town

Illinois

Southern Illinois University
School of Art
Carbondale, IL 62901

Dr. Patricia Covington
Summer Program July 9–August 3. Advanced Blacksmithing; Enameling; Jewelry
Instructor Richard Mawdsley
Accommodations Campus housing

Maine

Haystack Mountain School of Crafts
Deer Isle, ME 04627
Telephone (207) 348-6946
Summer Program June 10–September 7.
Two- and three-week workshops in metalsmithing and blacksmithing
Instructors To be announced
Accommodations Doubles, triples and dormitory rooms on campus

Portland School of Art
97 Spring Street
Portland, ME 04101
Telephone (207) 775-3052
Betsy Williams, Director of Admissions
Summer Program Mid-June–July. Jewelry and silversmithing
Instructors To be announced
Accommodations Hotels and motels in town

Massachusetts

Boston Museum School
Summer School Office
230 The Fenway
Boston, MA 02115
Telephone (617) 267-1219
Donald Grey
Summer Program Workshops in metalsmithing and jewelrymaking
Instructors To be announced
Accommodations Hotels in town

Boston University
Program in Artisanry
620 Commonwealth Avenue
Boston, MA 02215
Telephone (617) 353-2022
Summer Program May 15–June 23 and June 26–August 4.
Noncredit courses from beginning to advanced metalsmithing techniques and design
Instructors Clark Sanford, Georgia Giesser, Jeff Charnick
Accommodations Dorms and private work spaces for each student

Montana

Montana State University
School of Art
Bozeman, MT 59717
Telephone (406) 994-2952
Richard Helzer
Summer Program June 18–August 17. Beginning Jewelry; Advanced Metalworking; Graduate Metalworking
Instructor Al Gilmore
Accommodations Campus housing

New Jersey

Old Church Cultural Center
School of Art
561 Piermont Road
Demarest, NJ 07627
Telephone (201) 767-7160
Ron Garofalo, Executive Director
Summer Program June–July. Eight-week sessions in jewelry
Accommodations Hotels and motels in the area

New York

YWCA of New York City
610 Lexington Avenue
New York, NY 10022
Telephone (212) 755-4500
Janet Katz, Director
Summer Program July 9–19, Silversmithing with William Seitz; July 10–31, Creative Chains and Clasps with Tamiko Ferguson; July 11–August 11, Creative Settings and Stones with Phebe Allen Blake and Morris Winkler
Accommodations Hotels in town

Fashion Institute of Technology
Jewelry Design Dept.
227 West 27 Street
New York, NY 10001
Telephone (212) 760-7826
Melvin Strump, Dept. Chairman
Summer Program June and early July. Daytime and evening classes in Studio Jewelry, Rendering and Gemology
Instructors To be announced
Accommodations Hotels in town

Kulicke-Starke Academy of Jewelry Art
2231 Broadway
New York, NY 10024
Telephone (212) 362-8633
Margot Bachmann
Summer Program July 9–13, July 16–20, July 23–27. Intensive workshops in cloisonné enameling, silversmithing and goldsmithing, granulation, stonecutting, stonesetting and chainmaking
Instructors Jean Stark, Louise Parrish, Elizabeth Jamieson
Accommodations Hotels in town

92nd Street Y Jewelry Dept.
92nd Street YM-YWHA
1395 Lexington Avenue
New York, NY 10128
Telephone (212) 427-6000, ext. 162
Alison Howard Levy, Director
Summer Program June 3–July 25. June 3 and June 10, Working in Gold with Kim Bass; June 18–21, Designing Jewelry with the body in mind with Enid Kaplan; June 25–28, Printmaking Techniques for Enameling with Rebekah Laskin; July 8–11, Patination of Metals with Cynthia Cetlin; July 8–11, Lost Wax Casting with Jonathan Quick; July 22–25, Champlevé Enameling with Antonia Schwed. Others to be announced. Also, six weekly evening sessions in jewelrymaking with David Tisdale and Mary Beth Rozkewicz
Accommodations Hotels in town

Parsons School of Design
66 Fifth Avenue
New York, NY 10012
Telephone (212) 741-8668 or 741-5795
Mary Ann Scherr or Carol Williams
Summer Program June 18–July 28. Courses in Introductory and Intermediate Metals; Design and Rendering; Design and Production of Fashion Jewelry; Metal Forming; Electronics in Jewelry; Stone Setting; Acrylics and Metal; Anodizing; Photoetching Workshop
Instructors Deborah Aguado, Richard Palermo, Peter Mroczkowski, Michael Lieber, Gary Dougherty, Cara Croninger, David Tisdale and Mary Ann Scherr
Accommodations Hotels in town

Sculpture Center Studios
167 East 69 Street
New York, NY 10021
Telephone (212) 737-9870
Gary L. Sussman, Academic Director
Summer Program June–August. Workshops in stone, wood, welding and bronze casting
Instructors John Rackham, Jon Snow, Sylvia Davenport, Juan Larranga, David Klass, Lily Landis, Marion Roller, Frank Costa and others
Accommodations Hotels in town

Studio Jewelers Ltd.
32 East 31 Street
New York, NY 10016
Telephone (212) 686-1944
Robert Streppone, Director
Summer Program June 18–August 17. Stonesetting; Wax/Casting/Moldmaking; Jewelry Repair; Bead Stringing; Enameling; Beginning and Advanced Metal Fabrication; Jewelry Rendering
Instructors Robert Streppone, Patience Morgan, Lawrence Sultana, Donny Y Li, Donna Sturm, Takuro Nakaura and Terri Gelenian
Accommodations YMCA and local hotels

Westchester Art Workshop
County Center Building
White Plains, NY 10607
Telephone (914) 683-3986
Summer Program May 14–June 22 and June 25–July 6. Two six-week semesters with classes one day per week in Jewelry, Jewelry and Enameling, Jewelry and Casting and Jewelry Independent Study. Also, special one-day workshops: May 16 and July 14, Marketing Your Jewelry with Randey Gordon
Instructors Trudy Jeremias, Randey Gordon and Mariette Bevington
Accommodations Hotels and motels in area

North Carolina

Haywood Technical College
Freedlander Drive
Clyde, NC 28721
Telephone (704) 627-2821
Arch Gregory
Summer Program July 10–September 25. Repoussé, photoetching, stonesetting, mokume, granulation, inlay, reticulation, refractory metals, engraving, electroplating and gilding
Instructor Arch Gregory
Accommodations Motels and house rentals

The John C. Campbell Folk School
Brasstown, NC 28902
Telephone (704) 837-2775
Registrar
Summer Program Blacksmithing: May 27–June 2 with David Brewin, July 22–August 4 with Mark Bokenkamp, August 5–18 with Glenn Gilmore, August 19–September 1 with Charles Fuller, and September 9–22 with Jud Nelson; Enameling: May 27–June 2 with Maggie and Gus Masters, July 8–21 with Jeanne Garrison, and July 22–August 4 with Maggie and Gus Masters; July 8–21, Copper Sculpture & Lost Wax Casting with Neil Garrison; July 22–August 4, Mixed Media: Metal/Weaving with Rosemary Gould; July 8–14, Knifemaking with Travis Daniels

Ann Krohn Graham, California College of Arts and Crafts

Penland School of Crafts
Penland, NC 28765
Telephone (704) 765-2359
Summer Program June 4–August 31. Sculpture; Blacksmithing; Metals; Enameling
Instructors To be announced
Accommodations On campus room and board

Ohio

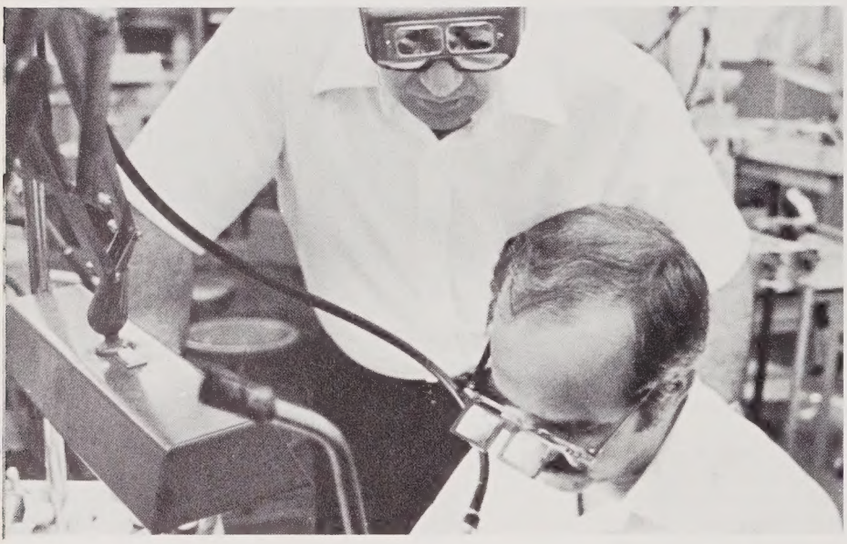
American Society for Metals
Metals Park, OH 44073
Telephone (216) 338-5151
Rodney W. Allwood, Director of Education
Summer Program May–September. Three-, four-, and five-day sessions including Elements of Metallurgy, Principles of Machining, Heat Treatment of Steel, Sheet Metal Forming Technology, Electroplating, Welding Metallurgy, Metallographic Techniques and many others
Accommodations Local hotels

Kent State University
School of Art
Kent, OH 44242
Telephone (216) 672-2192
Bruce Metcalf
Summer Program June 11–July 14. Four-week intensive workshop in metalworking, including material on spray etching
Instructors Bruce Metcalf, Linda Threadgill and others
Accommodations Dorms and local housing

Miami University
CraftSummer/Rowan Hall
Oxford, OH 45056
Peter Dahoda, Director
Telephone (513) 529-7128
Summer Program Three-, five-, and ten-day workshops in June and July in Enamels, Metals, Woven Wire and Cast Pewter
Instructors William Harper, William Helwig, Mary Klein, Bob Ebendorf, Stuart Golder, Kent Vanderplas and Bruce Metcalf
Accommodations Dorms

Oregon

Oregon School of Arts and Crafts
8245 S.W. Barnes Road
Portland, OR 97225
Telephone (503) 297-5544
Andrea Nebel, Curriculum Assistant
Summer Program June 11–16, Sheet Metal Forming with Heikki Seppä; June 27–29, Rendering Techniques for Enamel with Martha Banyas
Accommodations Local bed and breakfast by special arrangement



Rhode Island

The Jewelry Institute
40 Sims Avenue
Providence, RI 02909
Telephone (401) 351-0700
Richard E. Edgerton, Training Coordinator
Summer Program August 1–10. Courses in Soldering; Basic Jewelry Making; Working with Refractory Metals; Gemology; Bead Craft; Fundamentals of Assaying; Decorative Hammering Techniques; Pavé Setting; Creative Enameling; Hand Engraving; Practical Electroplating Workshop; Decorative Epoxying; Sample Making; White Metal Mold Making; Basic Die Making; Wax Carving for Lost Wax Carving; Jewelry from Start to Finish. Intensive, 40-hour courses in Jewelry Design; Basic Jewelry Skills; Stone and Diamond Setting; Introduction to Lost Wax Casting
Instructors Regular faculty and industry experts
Accommodations Hotels and motels in town

Rhode Island School of Design
2 College Street
Providence, RI 02903
Telephone (401) 331-3511
Mary Lyle
Summer Program June 24–August 3. Six-week workshops in Jewelry and Metalsmithing; Technical Illustration; Foundation Drawing; Perspective Drawing; Illustration
Instructors To be announced
Accommodations Campus housing

Tennessee

Appalachian Center for Crafts
Box 347 A-1, Route 3
Smithville, TN 37166
Telephone (615) 597-6801 or 6802
Summer Program June 18–August 24. One- and two-week workshops in: Enameling with Jim Melinda; Fibers Techniques with Rosemary Gould; Basic Metals and Metalsmithing with Tim McCreight; Blacksmithing with Frank Turley; Titanium with Bill Seeley; Metal Fabrication with Thelma Coles; Engraving with Alf Ward; Knifemaking with Sid Birt; Jewelry Design with Lynda Watson; Artistic Design in Iron with Jim Brubaker; Damascus Steel with Sid Birt; Architectural Iron with Steve Bond
Accommodations Dorms and campgrounds

Arrowmont School of Arts and Crafts
Box 567
Gatlinburg, TN 37738
Telephone (615) 436-5860
Clare Verstegen, Program Coordinator, Sandra J. Blain, Director
Summer Program June 4–8, Lost Wax Casting with J. Fred Woell; June 11–22, Jewelry Techniques with Chuck Evans; June 25–29, Fabricated Jewelry with Carol Kumata; July 2–13, Blacksmithing with Philip Baldwin; July 16–20, Enameling with Rebekah Laskin; August 13–17, Pewter Techniques with Fred Fenster
Accommodations Campus housing

Washington

University of Washington
104 Art
Seattle, WA 98195
Telephone (206) 543-0970
Betty Anderson, Undergraduate Advisor, Art
Summer Program June 20–August 20. Beginning Jewelry
Instructor John Marshall
Accommodations Dorms

West Virginia

Cedar Lakes Crafts Center
Ripley, WV 25271
Telephone (304) 372-6263
Tim Pyles, Director
Summer Program July 16–20, Enameling with Sandy Richert; July 30–August 3, Blacksmithing with Barry Wheeler
Accommodations Campus housing

The Jewelry Institute, Rhode Island

Wisconsin

University of Wisconsin-Madison
Art Dept.
Humanities Building
Madison, WI 53706
Telephone (608) 262-1660
Fred Fenster
Summer Program May 29–June 17, Pewter workshop; June 18–July 16, Beginning through advanced metalwork—jewelry through holloware
Instructors To be announced
Accommodations Dorms and private rooms

Canada

Harbourfront Craft Studio
417 Queen's Quay West, Suite 500
Toronto, Ontario M5V 1A2
Telephone (416) 869-8447
Jean Johnson, Craft Studio Coordinator
Summer Program July–August. Weekends and weekly evening classes in basic jewelry making and enameling
Instructors Wendy Shingler, Oksana Kit, Mary Pocock and Susan Wakefield
Accommodations Hotels in town

Artpark 83

by Tim McCreight

About 30 miles north of Buffalo, New York, less than 10 miles downstream from Niagara Falls, is a unique facility called Artpark. It is not so much a place as a program; in fact more than that, it is a concept. Artpark is a cultural resource designed to foster and present performing and visual arts as living enterprises. Here craftsmen, sculptors, storytellers, musicians, mimes and many other creative folks are employed during the summer for two- or three-week residencies to pursue their work, usually a specific project, before an interested public.

Artpark, which is 10 years old this year, is located in a state park and funded primarily by the Natural Heritage Trust, a New York State public benefit corporation. To the daily visitor some aspects will seem familiar. The cost is the same as any other state park ($2.50 per car) and the care of the area is entrusted to green-uniformed park rangers. But soon the similarity between this park and any other ends. The 200-acre Artpark site houses a 2300-seat theater and an elevated wooden structure called the ArtEl that provides a flexible workspace for the artists and performers who make the park work.

A typical day in the park will offer visitors about 10 scheduled performances, three workshop areas at which they can try their hand, about two dozen craftsmen at work and many sculptures around the grounds to explore. During the summer the theater offers classical concerts by the Buffalo Philharmonic Orchestra, Pops concerts and a full range of entertainment, including jazz, opera, folk and ballet.

Last summer I had the opportunity of being an artist-in-residence at Artpark. The following are my impressions of the experience.

Day One Well, the first day on the job went all right. My project was to make one-of-a-kind pocket knives, and I chose to do all of the work by hand: sawing out blades and springs, filing, heat-treating and fabricating handles, usually of precious metals and wood. Since I brought everything I needed, from workbench to tweezers, I was able to set up shop in about

an hour and get right to work. Some of the other people spent most of the day arranging for materials to be delivered or tracking down equipment. The park has available some big tools (table saw, arc welder, air compressor), but since they are used by so many people they're not always in ready-to-use condition. Yes, there are advantages to working small.

After closing at 5:00 we were invited to a wine and cheese get-together. Figuring in craftsmen, musicians and all, there are about 30 visiting artists. And then there are about half again as many energetic young people, of college age, who will be here for the whole summer serving as assistants, interns or park guides.

Day Two We started this morning with a more or less formal introduction to the park and its policies, which are quite straightforward. The executive director, who oversees the whole operation is aided by two program directors, one for the theater and one for the visual arts, a term expanded here to include all the visiting artists not directly connected with the theater.

The Visual Arts Director, Richard Huntington, explained that we are not here to teach and should not feel obligated to lay work aside in order to demonstrate to the public. It is understood that we will be cordial and willing to interact with those visitors who have questions, but personal work is the first priority.

Day Six This is the end of my first week; some of the novelty has worn off and been replaced by a relaxed camaraderie. Each craftsman has been assigned a small wooden structure (it looks like a garden shed). Since these heat up like giant solar ovens, almost everyone works in front of his shack under an awning, dragging out equipment each morning and stowing it away again at dusk. We are required to work from 11:00 to 5:00 but most people seem to be rolling in an hour or two ahead of that. This has become a friendly time for paying visits—sort of a shack-to-shack coffee klatch. At the end of the day, sometimes not until after 7:00, people sort themselves into groups that go off to find some dinner or evening entertainment. The dynamics of this group are friendly and supportive, seasoned with professional respect. I can understand how the nature of the group would greatly affect the Artpark experience. I lucked out. Tomorrow we have the day off. Some people plan to stay around here, while others will do some sightseeing or visit friends in the area.

Day Ten It is for me a pleasant change to work outside, even though the weather has been hot. Not that communing with Nature while doing benchwork is without its problems. Trying to solder in bright sunlight is like tying your shoes in the dark: it can be done but you feel pretty clumsy. Finding a small piece of metal that has dropped onto the grass is flatly impossible.

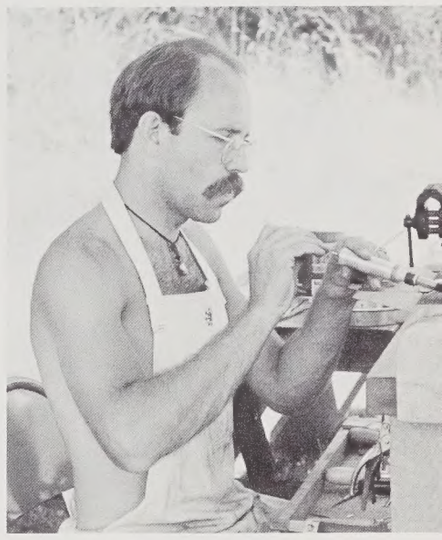
The Artpark theater has been a great fringe benefit. We are given two complimentary tickets each week and allowed unlimited free seating on the lawn area that is an outdoor extention of the theater. I've been to several concerts so far and plan to see several others. I think I've gotten more culture here than I have in the last year. Another regular evening entertainment is a slide show at which each of us shows our work. We do this two evenings a week, usually featuring four to six people at a time. Again, the mood has been altogether positive. And the work is very good. It's exciting to be around so many talented people, brimming over with innovation and commitment.

Day Fourteen This is the beginning of the last week and already there is a sense of things-being-over-too-soon. I had a chat today about the selection procedures for Artpark with Mary Roehm, a potter and consultant to the park. Applications are taken throughout the Fall and usually consist of a page of slides, a resume and a narrative description of the work to be done at Artpark. Project Artists also submit drawings, models and a budget for a specific piece (usually sculpture). Application is open to anyone. There is no policy against artists returning for several stints, but the selection leans toward new applicants in an effort to spread the opportunity around. All materials are reviewed first by the executive director, the visual arts director and at least one consultant, who is a working artist. After some preliminary sorting, this group meets to make the final decisions. About one in six applicants will be accepted. Mary stressed that there are no fixed policies, that the selection is an organic process of molding a group that will contribute to the park and benefit deserving artists. There are no specific guidelines on media or geographic distribution. Often a theme will present itself, emerging out of the applications received. The selection process tries to be open to this and sensitive to the many factors that will make a residency at Artpark successful for everyone.

Artists are paid both a salary and a stipend for living expenses during their stay by Artpark. Salary amounts will probably be different next year (increased to keep up with inflation) but I received $325 per week salary plus a living stipend of $150 per week. This can be used toward camping on the grounds at $4 per night, at a hotel whose rates were discounted for park residents or in any other way. Travel was reimbursed at the standard rate, and a materials allowance in the neighborhood of $150 was given to each resident. This last amount differed from individual to individual, depending on the project at hand. Kitchen facilities are available to artists without charge. If a resident chooses to live frugally, travel cheaply and so on, he can take home about $1700 for the three-week residency. A more comfortable figure would be around $1200, allowing for a hotel room and meals in restaurants.

Day Twenty Last day. This week has seen a little less work and a little more socializing. I know I've met some good people here that I hope to see again. The feeling must be widely held, since plans have already been made for a reunion of this group next summer.

I didn't have specific expectations of how much work I'd get done while here, but I feel satisfied with what I've accomplished. I did not feel pressured to work at a dazzling pace and so turned out eight knives in the course of my residency. Since my schedule is generally a jumble of teaching, preparing to teach, working on commissions, making jewelry for exhibitions and answering the phone, knifemaking has been for me one other activity to add to the already stretched schedule. The excitement of Artpark was to be able to focus on that single topic and work through ideas without interruption. I have a feeling that the designs and tricks I came across at the park would have come along anyway, sooner or later. But because of the focus of attention, I feel like I got around to them a year earlier than I would have otherwise. An example: It occurred to me, while sitting at my bench at Artpark, that most pocket knives when they are closed look like objects that are waiting to come to life—stalled cars, tractors in their barns. From there it was a short jump to the idea that a knife should have a life of its own, beyond its function, so I tried a couple knives that had a sculptural kind of presence when closed. I think it's a direction I will pursue for a while.



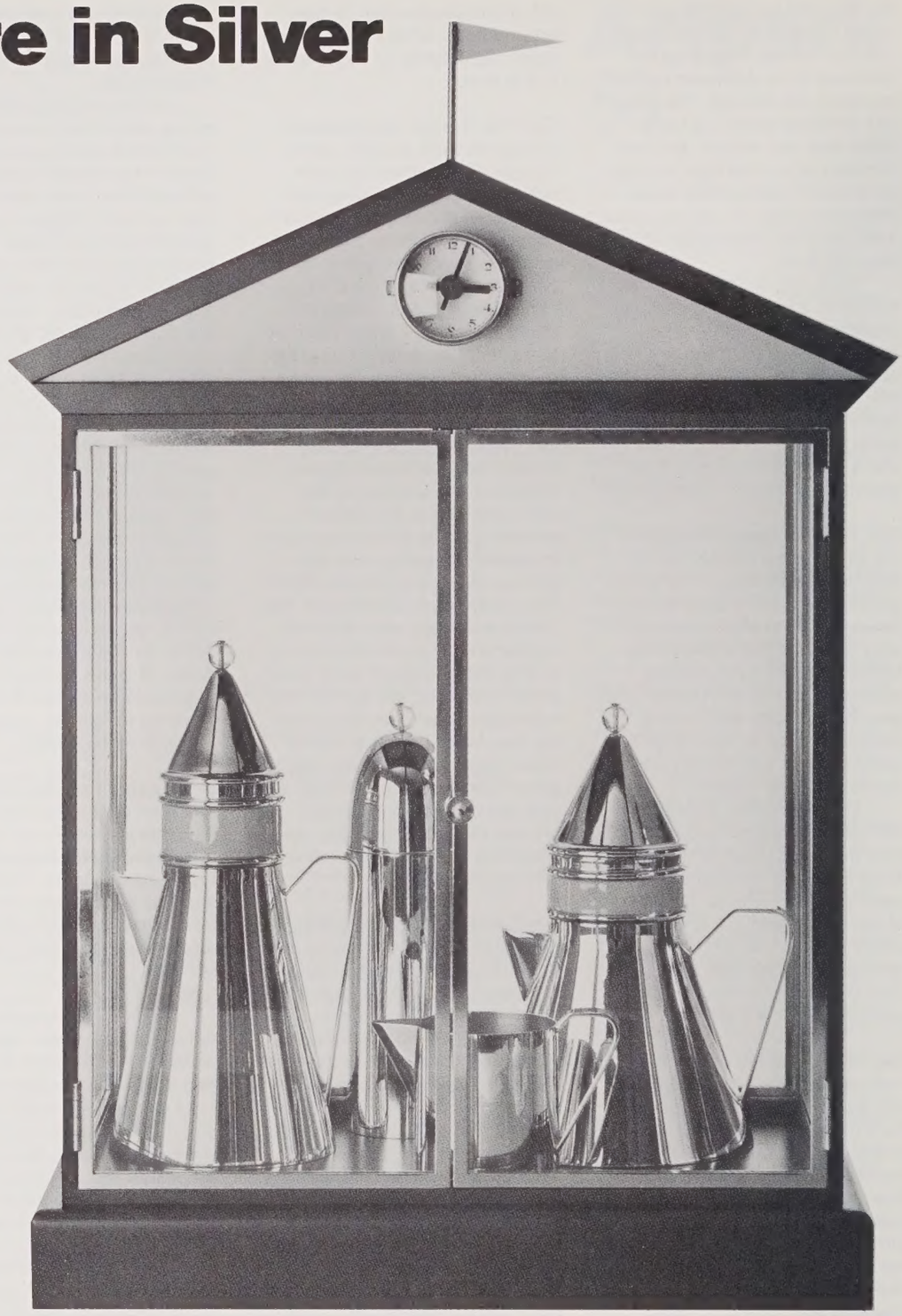
In preparing to write this article I've spoken with some metalsmiths who have worked at Artpark in the last several years. No two have the same feelings about their experience here. Artpark is sort of like an all-day picnic in the country: if you had a good time you remember the sunshine and the good food. If you had a bad time you remember the ants and mosquitoes. What seems to make Artpark a good time is undertaking work appropriate to the open-air, before-the-public working conditions, the ability to be flexible enough to work within the unusual (and unforseeable) dictates of the park, and a willingness to get along with the public and the other artists. For me Artpark was a tiring but exhilarating time, a three-week change of pace that will provide warm memories on cold winter days. ■

Anyone interested should send an application to: Artpark, Visual Arts Program, Box 371, Lewiston, NY 14092

Architecture in Silver

by Kurt Matzdorf

It would be equally unrealistic to commission creative silversmiths to design well-functioning buildings.



Aldo Rossi, *Coffeepot,* upper cylindrical band in light blue stove enamel, lid with terminal sphere in quartz, 26 cm h; *Teapot,* 22.5 cm h; *Milk jug,* 8.5 cm h; *Sugar bowl,* 22.5 cm h; *Spoon,* silver-plate; *Storage unit,* black iron base, frame in brass, doors in hinged glass, handle knob in quartz, pitched-roof lid in copper, drum in light blue glazed plate with battery clock, 64 cm h

Kurt Matzdorf is professor and director of the gold and silversmithing program, State University of New York, New Paltz

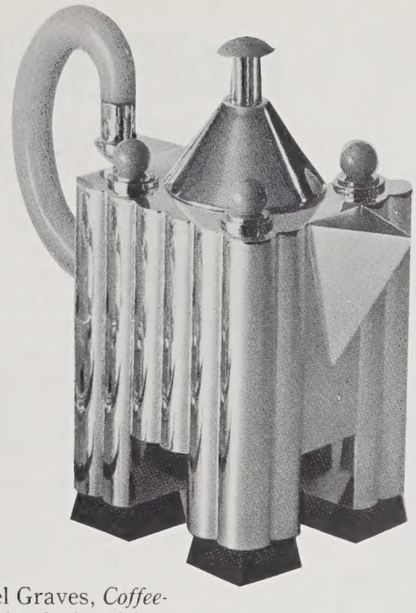
In the Fall of 1983, the Max Protetch Gallery in New York City presented a collection of tea and coffee sets, complete with sugar bowl, creamer and tray, produced by the Italian firm Alessi. The collection was the result of an experimental project based on an idea of Alessandro Mendini in which 11 internationally known contemporary architects were each commissioned to do the research and design for one set. The results are both exciting and problematic. Some designs are very elegant and work well in every respect. Notable among these is the set of Spaniard Oscar Tusquets who combines silver with gold plating on the inside and inset glass lids and an ebony handle on the teapot. The tray echoes the graceful elegance of the rest of the set.

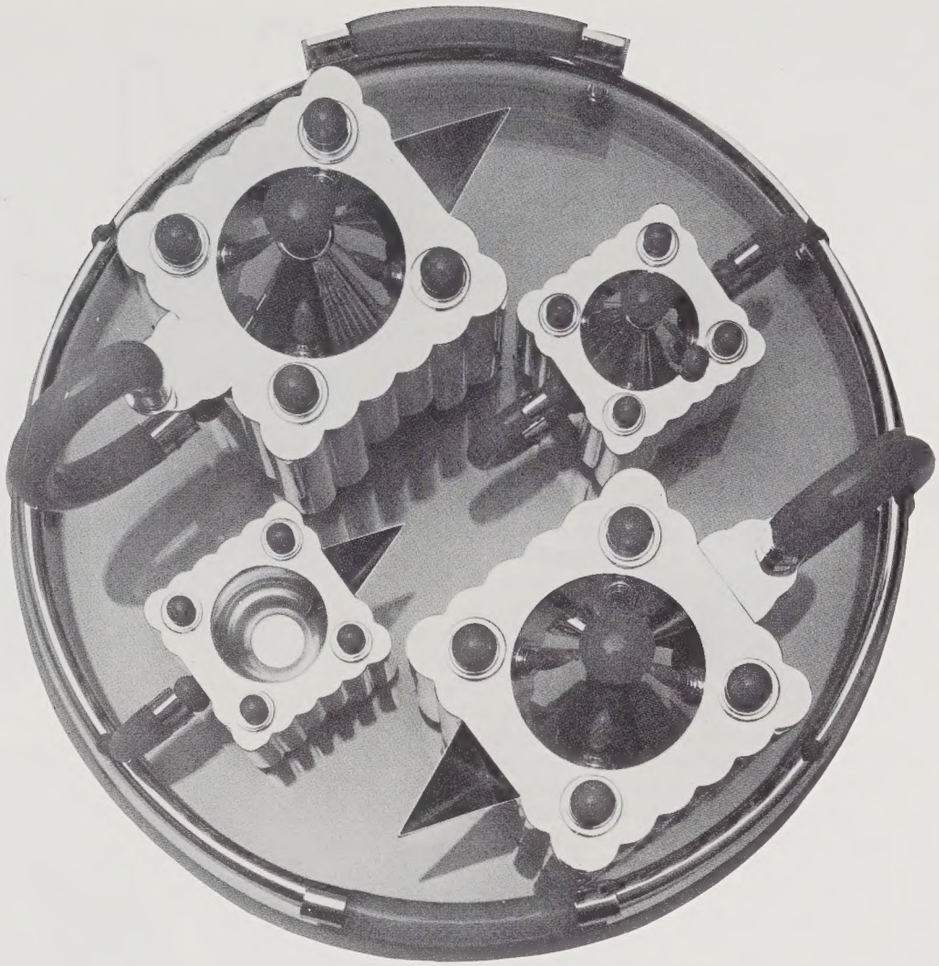
Perhaps the best thought-out design was produced by the Austrian Hans Hollein. His tray was in the form of the deck of an aircraft carrier. A square sectioned coffeepot was designed to nest with the sugar bowl that in plan was three quarters of a short cylinder. Both pieces fitted against the rim of the tray, as did the tall elegant creamer. A long, oval teapot had a bold sweep. All pieces handled easily, were well balanced and had heat-insulated handles. The tray was the only one in the 11 sets large enough to accommodate tea cups which indicated that some designers had simply not informed themselves adequately as to how a tea and coffee set is used; the worst omission was the absence of heat insulation on the handles and finials on the coffee- and teapots.

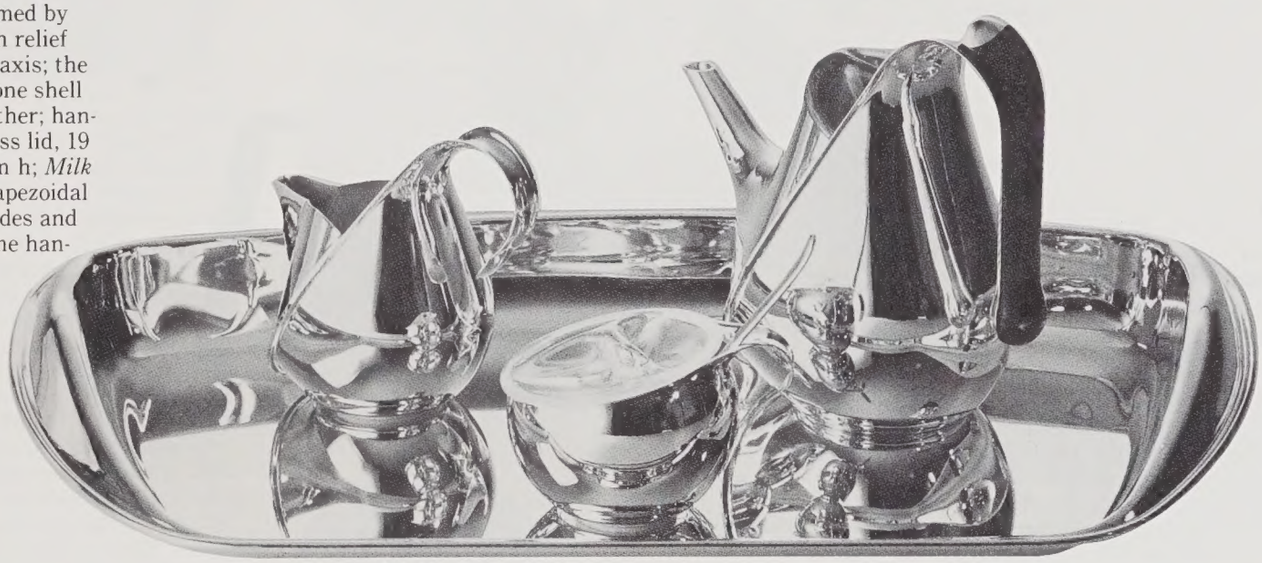
Alessandro Mendini's design was among these. His set displayed tubelike pedestals that created a certain floating lightness. Finlike flags on the side of the coffee- and teapots seemed superfluous. On the sugar bowl where they could have acted as handles they were absent. It was almost impossible to pick up the hemispherical sugar bowl.

Paolo Portoghesi designed his set on a hexagonal plan made to nest on an elongated hexagonal tray. Three bands of black-and-white champlevé enamel were effective. The concept was generally well integrated but the nesting was so tight that the pieces, when handled, are bound to scratch each other badly.

Aldo Rossi's set does not work as a set. The coffee- and teapots are conical (with uninsulated silver handles), the creamer and sugar container are cylin-







Above Michael Graves, *Coffeepot,* square section body with festooned sides, and four support bases likewise square-sectioned and with festooned sides; on the top corners are four little spheres in blue lacquered aluminum; truncated pyramidal feet in black bakelite; truncated conical lid with knob composed of four miniature silver columns and semispherical cupola in blue glazed aluminum; handle in mock ivory, 24.5 cm h and **right,** top view; **Below right** Oscar Tusquets, tea service only: *Teapot,* body formed by two welded shells with relief riveting along a tilted axis; the handle is attached to one shell and the spout to the other; handle cover in ebony; glass lid, 19 cm h; *Sugar bowl,* 8 cm h; *Milk jug,* 12 cm h; *Tray,* trapezoidal shape with rounded sides and raised rims that become handles, 16 cm h

drical, the latter so tall, and with an eliptical cover, that it will be difficult to get the sugar out with the very shallow spoon. What the set itself lacks in originality is made up by the storage unit which is a little house with glass sides and doors with a green patinaed roof sporting a weathervane and electric clock in the gable.

Stanley Tigerman's set is perhaps the most whimsical. The silver handles and finials on the coffee- and teapots and creamer are in the form of braided human hair and the pouring lips are casts of human lips. The silver handles on the spherical sugar bowl have the shape of human ears and the handles on the tray are in the form of human hands. Except for these attachments the forms are dull and insensitive.

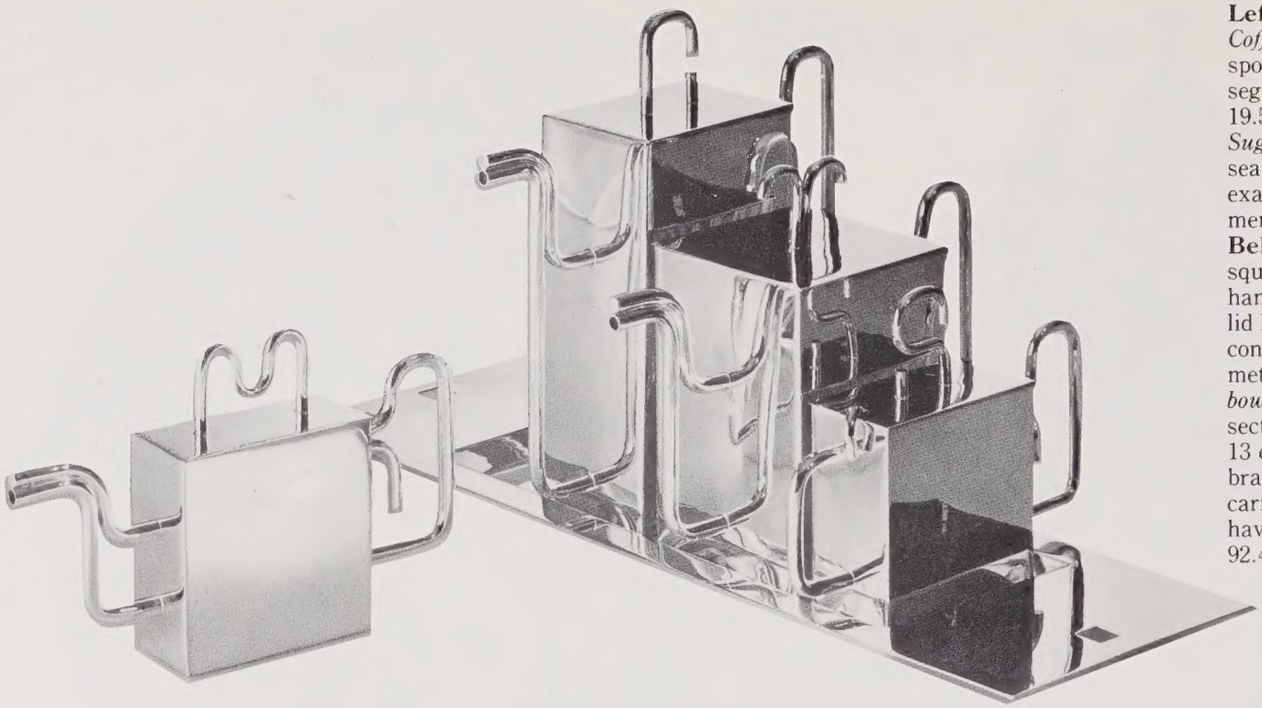
Michael Graves has produced the most eye-catching set of all. It is so massive that it reminded me of the blue monsters in the old Beatles movie "Yellow Submarine." This may be due to the high, somewhat elephantine feet that each container displays, as well as several dozen bright blue, painted aluminum spheres and finials. The round glass tray with tubular silver rim has a certain airiness that contradicts the massiveness of the set.

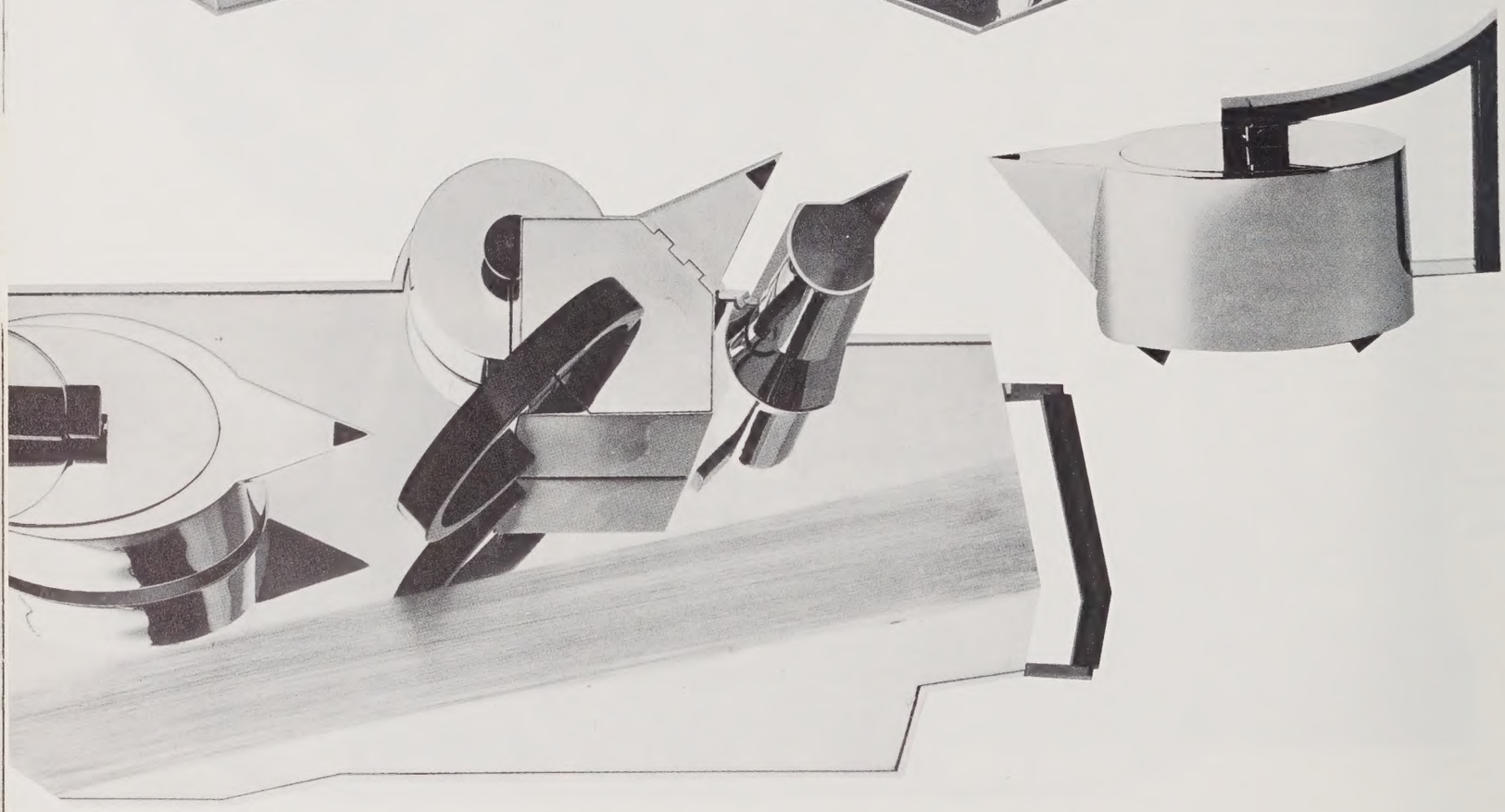
Charles Jencks's set looks like a fine architectural specimen. The columnar pieces don't work as coffeepots, teapots or sugar containers. In terms of a tea and coffee set they are a bad joke. It's too bad that such excellent craftsmanship was wasted on such a useless design.

Richard Meier's set, sculptural as it may look at first sight, is a highly impractical design. It is much too heavy and the inside is so cut up with sharply protruding edges as to make cleaning hazardous and impossible. I also had the feeling that it was a take-off on the sculpture of Louise Nevelson. How much better Helen Shirk would have handled this problem.

Robert Venturi's set seemed to me the most incoherent. No piece had any relationship to any other, and the decoration, both the engraved lines and petals and the random gold plating, didn't go with the form to which it was applied.

Kazumasa Yamashita designed a set that has simple sensitive proportions. The use of tubing on the lids of the pieces to spell out the first initial of the contents is highly original. The thin tubing used for spouts and





Left Kazumasa Yamashita, *Coffeepot,* hinged lid; handle and spout made in double tubular segments, 22.5 cm h; *Teapot,* 19.5 cm h; *Milk jug,* 14.5 cm h; *Sugar bowl,* 15 cm h; *Tray,* relief seams on the tray's surface exactly determine the arrangement of the pieces, 51x16 cm; **Below** Hans Hollein, *Coffee pot,* square section body; spout and handle pivoted on the corners; lid hinged on the spout side with concealed hinge; handle in blue metacrylate, 17 cm h; *Sugar bowl,* three-quarters of a circle section body, 7 cm h; *Milk jug,* 13 cm h; *Tray,* electroplated brass; shaped like an aircraft-carrier deck, on which the pieces have a precise arrangement, 92.4x31 cm

handle and the visual continuity of the boxlike containers I found pleasing. However, the set has some serious functional drawbacks. The uninsulated handles and finials on the coffee- and teapots and the much too low starting points of the spouts are likely to present problems in use. Also the tray bent when I picked it up with the empty set on it. An edge around it would reinforce it and could easily remedy that problem.

I should like to congratulate Alessi for having taken the initiative in attempting a breakthrough in the design of silver holloware. Unfortunately, the result is not altogether successful, due to the fact that they asked architects rather than creative silversmiths to produce the designs. It would be equally unrealistic to commission creative silversmiths to design well-functioning buildings. The history of gold and silversmithing of the last 5000 years amply demonstrates that the best silver designs have always been produced by those who actually worked the silver, since they are the only ones who develop the intimate relationship with it that allows them to bring it to its full artistic potential. During my various visits to European silversmithing schools and factories I have become painfully aware of the increasing separation of the designer from the maker. This has resulted in an increasing sterility of contemporary holloware design in Europe with the possible exception of England and Sweden. Let us hope that the American Silver Industry will be inspired by the example of their Italian colleagues and join forces with the large pool of talent in the Society of North American Goldsmiths to present to the American public a new and vital contemporary collection of American holloware.

A handsome catalog of this work, entitled *Tea & Coffee Piazza,* is available for $10, plus postage and tax, from: Max Protetch Gallery, 37 West 57th St., NY, NY 10019. The coffee and tea services produced in 99 numbered copies range from $10,000 to $30,000. The exhibition will travel in 1984 as follows: Renaissance Society, Chicago, January 8–February 5; San Francisco Museum of Art, February 17–April 11; La Jolla Museum of Contemporary Art, April 28–June 3, and can be seen in the small gallery at Max Protetch in New York through June 1984. ■

Exhibition Reviews

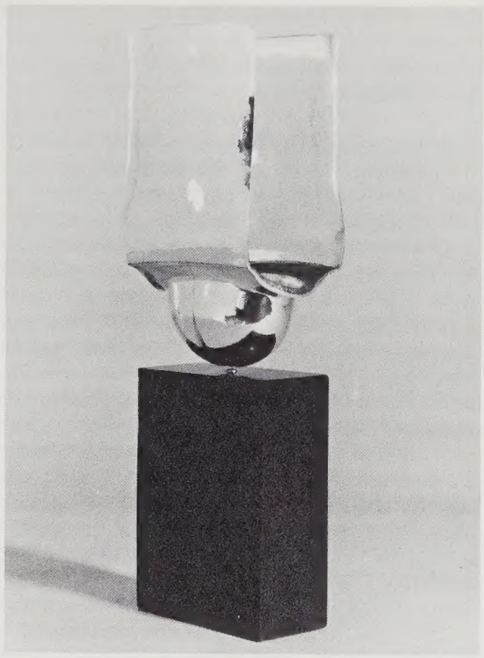
John Marshall
Concepts Gallery, Carmel, CA
May 29–June 30, 1983
by Walter Soellner

The success of John Marshall's art, as a practicing metalsmith, was evident in this impressive exhibition. Held in conjunction with the 1983 Society of North American Goldsmiths Conference at Asilomar, Marshall's show was the visual and esthetic high point of the goldsmiths' gathering. This comprehensive exhibition was about where John's work is, stylistically. There were several early pieces—wonderfully crafted teapots with sugar and creamer—several fairly recent pieces—raised sterling forms on carved acrylic bases, with cool, frosted finishes and some parts crystal clear—and new departure pieces, incorporating carved and polished basalt stone with raised, formed, chased and engraved sterling forms arranged in cantilevered dynamism.

There was a rawness in the stone elements that evoked a sense of nature's latent power, a feeling of primordial origins. These were not the too, too finished surfaces of earlier pieces, of another time, and an earlier Scandinavian influence. Here we saw in Marshall's work a sense of the mature designer introducing another element, basalt, into his ongoing dialogue with metal. There was a sense of permanence about these new pieces and a sense of an understood historic perspective, not derivative of stonecarving sculptors of the past, but with an implied acknowledgment to the stone monument builders. These new pieces were not large, but they possessed a certain monumentality. The sensitive use of stone and sterling as esthetic statement, suggested an understanding of these materials in a way similar to Isamu Naguchi's images in stone.

Some of Marshall's stone elements are geometric shapes, some are monolithic slabs with one or two polished surfaces contrasting with the raw cleavage of the natural surface. And attached to these, in wonderfully precarious positions, are the silver forms that seem to sometimes float above the stone and are yet tethered to them. The exhibition consisted of bowls, candelabra, vases, cocktail servers, pure sculptural forms and even jewelry embodying basalt. Several pieces were breathtaking; all were worthy of careful attention.

Finally, I mention the quintessential work of the exhibition, the *Winged Bowl.* While this piece has been exhibited with both an acrylic base and a basalt base, its singular beauty is of a quality that sets it apart from its fine companion pieces. This sterling bowl of such contemporary design suggests several historic references. Among them is the classical Greek sculpture, "Winged Victory," or perhaps a Japanese Samurai helmet. In any case, it is beautifully crafted metal, with small but important detailing, like the thickened edges, a fantastic effect, for those who know and love metal. ■



Top John Marshall, *Winged Bowl,* sterling silver, 7 x 7 x 13½"; base, basalt stone, 3¾ x 7½" x 10"; **Above** Stuart Devlin, *Teapot,* prototype, brass, ebonite, 9"l. 1957. Stuart Devlin Private Collection; **Right** Stuart Devlin, *Plaster models for Australian coins,* 1963–1983; the first coins to be designed by Devlin marked a turning point in his career

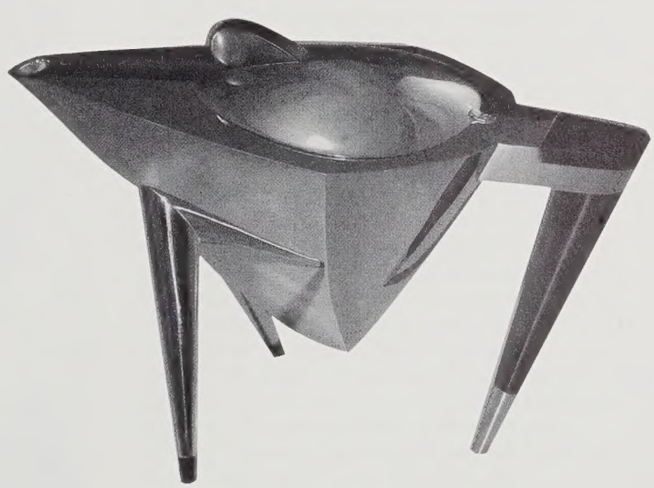
Stuart Devlin Retrospective Exhibition
Goldsmiths' Hall, London, England
November 24–December 9, 1983
by Marilynn Nicholson

Stuart Devlin's exhibition offered the viewer a feast, a visit to an Aladdin's cave. The exhibition celebrated 25 years of achievement by an outstandingly innovative, creative and prolific designer. The abundance and range of the items on show astounded even the most seasoned exhibition goer. On view were sleek teapots from the 1950s, as well as bejewelled eggs from the 70s. There were immense trophies and commemorative centrepieces commissioned by such diverse bodies as the Stock Exchange and the Dean and Chapter of Canterbury Cathedral. There were coins and candelabra, clocks and cufflinks, all products of dynamic and independent talent. The variety challenged the reason and the rich opulence dazzled the eye.

Stuart Devlin's fellow goldsmiths owe him a double debt for he has overthrown convention and extended the boundaries of his craft. Over the years he has built up an efficient organisation in which work is delegated to a band of loyal and skillful craftsmen. By introducing modern managerial skills and using computers, he has demonstrated that the artist can succeed commercially and yet still retain high standards of design and manufacture.

He challenges convention in another way, for he is not restricted by traditional assumptions about the limitations of the artist's role. He seeks perfection in the transferability of skill, design and function from one material to another, from one artifact to another. Although trained as a metalsmith, he now designs furniture, recreating in wood features such as filigree which he has extensively and successfully used in his work as a goldsmith. His approach is refreshingly independent and nonpurist, both in the manner in which he organises the production process and in the way in which he uses his chosen materials and the objects he fashions from them.

The lack of evident boundaries in his work may be derived from his Australian background. The eclectic nature of his cultural inheritance would free him from the more usual constraints of the European tradition and release his fertile imagination and the driving energy and enthusiasm with which he strives to rethink form and technique. So rich and abundant has been the flow of his ideas from his earliest days as an exceptionally successful student that the workshop can be seen as a natural development, necessary in order to carry out his designs.



The objects on display at the exhibition were remarkable for their technical skill. Stuart Devlin has, for example, conquered the problems of raising large containers and working on a monumental scale. A characteristic of his work is the way in which he marries contrasts. The viewer was shocked into rethinking long-held assumptions. The delicacy and fragility of filigree was seen to support a substantial highly polished tabletop. A paper knife had an ephemeral yet robust filigree twist for a handle. A decanter, clean and Scandinavian in silhouette had a deep band of gold texture round the neck. The scultpure *Restrained* was a pierced globe, which defied expectations by remaining supported on a length of brutal chain. The beauty and sensitivity of many of the items was also a delight. The designs for new Australian coins were charming, simple portraits of native animals, illustrations which conveyed their habits and qualities. In addition there was technical and mechanical ingenuity which gave versatility. A run of candelabra was hinged so that it might be arranged either in a sinuous line or in a closed group as required. Many of the exhibits were rich in their appeal to more than one sense. A particularly attractive ring formed from a graduated triangular section had unusual tactile and visual qualities. Other exhibits played with light. And there was also humour. The handle of a caddy spoon was a frog or an elephant, and a cracker waited to be pulled.

In an exhibition of such diverse and brilliant work, it seems almost churlish to express doubts. Yet the random free forms used by Stuart Devlin are reproduced so often, both as decoration and as integral structure, that spontaneity is endangered and enjoyment dulled. The frequent use of filigree in such a variety of applications is ingenious and can be regarded as pushing a theme to its limits. Could its use have benefitted from being more restricted? Perhaps his very superabundance of ideas, his constant seeking for novelty and the need to meet the demands of commissions generates its own problems of editing. The artist has a responsibility to act as his own critic and show discretion when purifying his ideas. There remains the problem of the conflict between scale and the artist's personal statement.

Stuart Devlin's work demands admiration and respect. It is powerful, dominant and aggressively confident. It is particularly remarkable for its range and volume. This was an outstanding exhibition and thanks are indeed due to those who organised the collection and to those who lent items for display. ■

Samuel Yellin, Metalworker
Federal Reserve Bank, New York City
October 4, 1983–January 3, 1984
by Kathleen Nugent

At a time marked by an international revival of the blacksmith's art, the Samuel Yellin exhibition at the Federal Reserve Bank provided a welcome opportunity to view the work of one of this century's master metalworkers. Here, in 61 "sketches in iron," ranging from gates and grilles to finials, locks and doorhandles, Yellin's restless imagination was alive. His understanding of the artistic potential and expressive quality of iron was felt throughout; his concern for excellence in craftsmanship apparent everywhere.

Samuel Yellin (1885–1940) was born in Poland, where he served an apprenticeship with a master ironworker and acquired an impressive variety of skills. In 1906, Yellin emigrated to the United States and settled in Philadelphia. There he established what was to become one of the largest blacksmithing studios to date, employing over 200 men during the 1920s. Yellin created the ironwork for some of the major architectural projects of his time, including that of the Federal Reserve Bank itself.

By necessity, Yellin's architectural commissions were represented in the current exhibition through drawings and photographs. However, the fundamental issues addressed in these large projects were well illustrated by the smaller objects on view. Iron fragments and ornamental studies suggested the infinite variety of motifs which Yellin infused into his work. A theme is established, and variations abound; pattern is suggested, but it is never regular nor stereotyped. In an interior gate with variations, what appeared at first glance to be a regular allover pattern was actually a myriad of varied grotesques and floral designs.

By incorporating these irregularities into his work, Yellin continually emphasized the plastic nature of the medium.

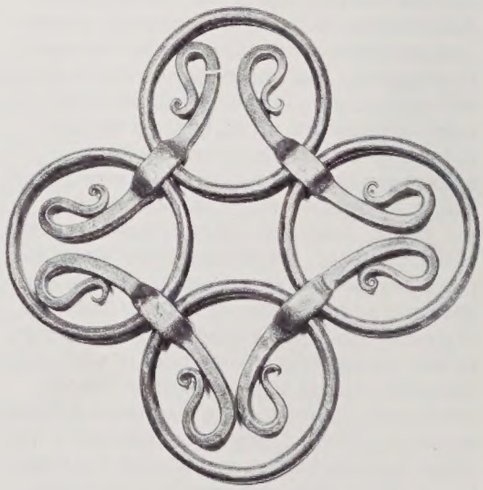
Excellence in craftsmanship was also one of Yellin's primary concerns. He contended that for a piece of craftsmanship to be good, not the smallest part of it should receive adverse criticism. He believed it impossible to be too discriminating, an unwavering insistence reflected throughout his work. Small details such as hardware fragments are rendered with the same attention accorded to large pieces.

The opportunity to view the exhibition in the Federal Reserve Bank provided additional dimension, for the bank's ironwork was one of Yellin's most important commissions. Completed in 1924, the huge project of 200 tons of iron was the largest decorative wrought iron job ever done by an American. It included everything from the building's massive exterior lanterns to interior tellers' grilles, tables and such details as door handles.

In the bank's ironwork, as in other pieces in the exhibition, Yellin's sources of inspiration in the past were clear. Tradition was his point of reference, but his designs represent a process of evolution, not of imitation.

Yellin is quoted in the exhibition as stating, "Iron is a dead metal and it is fun to bring it to life." His remarkable success in doing exactly this makes "Samuel Yellin, Metalworker" an exciting exhibition. Forty-three years after Yellin's death, his work continues to set standards of craftsmanship and to provide inspiration. ■

"Samuel Yellin, Metalworker" is a traveling exhibition curated by Jack Andrews, organized by the Philadelphia College of Art Alumni Association and circulated by the Gallery Association of New York State. It includes 61 objects, 13 drawings and additional photographs. The exhibition's 1984 tour schedule is as follows: Albany Institute of History and Art, Albany, NY, January 20-February 19, 1984; Oglebay Institute Mansion Museum, Wheeling, WV, April 6-June 1, 1984; The Hyde Collection, Glens Falls, NY, July 19-September 2, 1984; Rhode Island School of Design, Providence, RI, September 20-October 21, 1984; Munson-Williams-Proctor Institute, Utica, NY, November 9-December 1984. A catalog including an article by Jack Andrews (reprinted from the Anvil's Ring, *Summer 1982) is available for $1.50 from: Yellin Iron, Samuel Yellin Metalworks, 5520 Arch St., Philadelphia, PA 19139.*



Samuel Yellin, Wrought ironwork

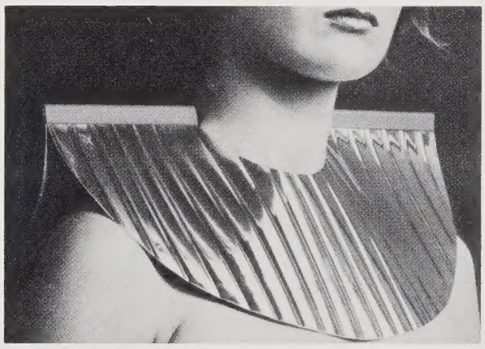
Gayle Saunders
Helen Drutt Gallery, Philadelphia, PA
October 8-November 5, 1983
by Caroline Strieb

Of the various schools of thought about design, "less is more" has been one of the most enduring of the 20th century. Its beginnings were in the reaction against the almost stupifying ostentation used to proclaim society's wealth and power, and almost equally against the shoddy, ill-conceived mass production of the Industrial Revolution. It was developed to denote "honest" simplicity and the feeling that "quality" did not automatically necessitate excessive embellishment, or indeed, any embellishment at all. At times, "less is more" conjures up images of drop-dead chic: Halston's "little" black dress; it can also call to mind the domestic interiors at Hill House by Charles Rennie Macintosh. Whatever the philosophical imperative may be, "less is more" really works best when certain conditions are met: clearly defined goals in line or form; perfect materials whose intrinsic beauty and/or appropriateness is most apparent in an uncomplicated state; exquisite workmanship that promotes the artist's concept and does not hinder the realization of the form or image. It is in the achievement of these goals that resolution of the apparent conflict rests. Gayle Saunder's recent show at the Helen Drutt Gallery addressed a number of these ideas and resolved them successfully with both technical and philosophical integrity in work executed in 1982 and 83.

Whether the work was viewed as a whole or individually, it was elegant, original and approachable. The show was comprised of 17 unique and limited-edition pieces—necklaces, brooches, earrings and a bracelet—representing the exploration of one concept. A series of gold panels contained within a strong geometric black steel framework bespoke a concern with contradiction: bright and dark, ragged and hard-edged, random and geometric, gold/soft and steel/hard.

On yellow-gold panels Saunders explored metal with scatterings of colored gold fragments and bits of twisted wire which appeared to have been fused on and then rolled into the background material. The result was never hard-edged or overloaded. The panels with their ragged edges and flecks of color were reminiscent of Autumn leaves. This was studied artlessness. The randomness in juxaposition to the framing steel's geometry set up a pleasing tension: contrast without disharmony. Grooves cut to accommodate the gold wire support structures helped to integrate the two colors and weights of metal. Although a seemingly minor detail, without these grooves the connection might have been jarring. The very types of metalsmithing employed served to heighten the contrasts and to then resolve them. A pleasing sense of proportion was created by the clarity of solid forms in defined space. There was a feeling of richness without busyness. Although having been refined down to its essential elements, and maintaining a strict format, the work remained the product of human experience and not mere intellectualism.

The show's presentation was also notable. While Saunder's work obviously does not suffer from a lack of ideas, here all pieces were variations on one theme: black geometry with interior panels of goldwork. Whether this was the gallery's or the artist's decision, it was right. The Helen Drutt Gallery exhibits jewelry in a banque of brushed steel and gray velvet wall cases which accommodate large or dramatic pieces, showing them to great advantage. Small or delicate work can sometimes seem overwhelmed in them. However, here each piece of jewelry was displayed on its own square of handmade paper. The paper's torn edge as well as its internal random scattering of twig and fiber served to reiterate and reinforce the statement already made in gold. The repetition of similar structures enhanced and strengthened the impact of the subject matter. More than just pinning pieces to a wall, there was an actual integration of presentation and subject matter which formed a very effective and successful display. By limiting the range of concepts, by keeping the layout simple and straightforward, by showing each finely wrought piece without "artsy" elaboration, the artist was able to make a more dramatic statement about her work without compromising the subtlety and intimacy of the individual pieces. This almost deceptive simplicity showed to advantage work which was beautiful and rich with meaning. ■



Top Gayle Saunders, *Brooch,* 14k yellow, green, pink and white golds, 18k yellow gold, mild steel; **Center** Anita Evenepoel, *Collar,* mylar and plastic; **Above** Bernard François, *Pendant,* stainless steel, plexiglass

Belgian Jewels Today
Inter-American Development Bank,
Washington, D.C.
October 11-26, 1983
by Gretchen Klunder-Raber

The brain child of a private art-craft dealer, Denise Renard-Honhon, this exhibition presented 22 of Belgium's contemporary jewelry designers. The idea was to introduce Americans to a representative selection of Belgium's best younger and lesser-known artists working in metal. It was an impressive achievement in an organizational sense; one which might be emulated by some patriotic art dealers over here. The promotional aspects of the show: a slick catalog, posh gallery display and a tie-in with the Belgian Embassy for an opening bash, led to an extension of its two-week run.

Historically, Belgium has been one of Europe's jewelry centers, this designation derived in part from the diamond cutters of Antwerp and the traditional silversmiths of 18th-century Liège. Tradition was carried over to this show in the plethora of diamonds in many of the works. Although billed as a leading-edge statement show, there was much that owed both imagery and craftsmanship to formal goldsmithing. Insects, flora, Art Nouveau, Art Deco, 50's teardrops, 60's soft folded wax, all received personal treatment but, with few exceptions, did not break any new ground. The Belgian Ambassador, J. Raoul Schoumaker, was correct in stating in his introductory letter that those in the United States in the "decorative arts" are knowledgeable. Indeed, there is a good bit of familiarity with current definitions in Europe and the U.S. through the work of Hermann Junger, Peter Skubic, Edward De Large, Bruce Metcalf, Jamie Bennett, Carol Kumata, to name just a few. Thus, comparatively, the Belgian work in the use of materials such as acrylic resins, stainless steel, rubber, titanium and so on, was not remarkable. However, within the show, several artists through interesting nuances in esthetic statement, superb craftsmanship and concept exploration generated excitement.

Most intriguing were fashion statements of Anita Evenepoel, whose particularly thorough and dramatic approach to body adornment was expressed in black rubber. Concise and clever, the jewelry functioned through the use of clothing formulas. Buttons snapped together collars and cuffs. Poncho forms were cut and pierced like leather. Bernard François electrified with his high-tech imagery. Refinements and energy integrated miniature universes that focused on the beauty of our increasingly technological environment. Claude Wesel is a marvelous technician with an established reputation in contemporary metalwork and whose pieces exhibited hard-hitting visual design systems. A lyrical reference to nature draws one to the work of Dominique Van Heddegem. Although technically loose, it is still positive. The direct connection between Walter Jouret's sculpture and his jewelry is remarkably successful. Usually, the jewelry of artists who work primarily in other art disciplines looks merely miniaturized and oddly out-of-scale, or it looks unnecessarily constrained taken out of its original expressive context, for example, some of the "jewelry" of Picasso or Dali. Not so with Jouret. His jewelry has a sensual, contemporary relationship with the body. Other works of note were by Anne Zellien, Didier Cogels, Hubert Minnebo, Jeanine Renard, Jean-Marie Fievez and Laurent Max De Cock. ■

Jewellery in Transition
Prime Canadian Crafts, Toronto, Canada
Fall 1983
by James Evans

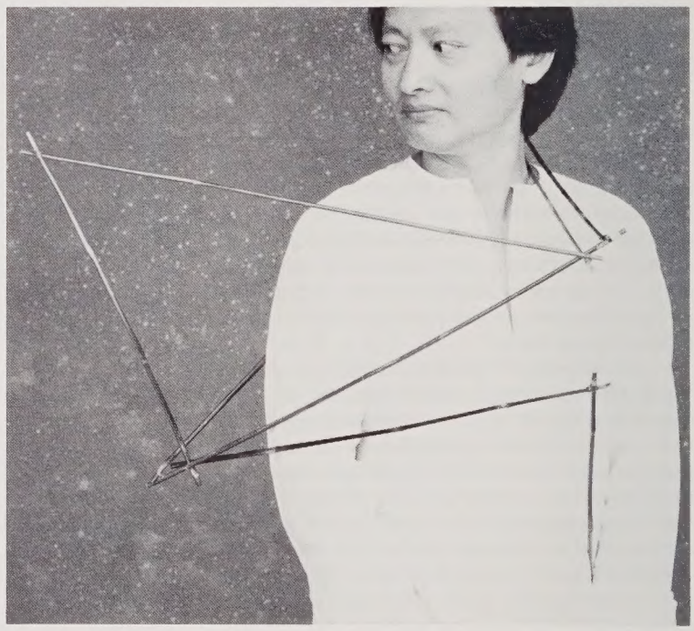
In early 1983 a call for entry was sent out across Canada for submissions to a multi-media, nonprecious jewellery exhibition inspired by the spirit of the British "Jewellery Re-defined" show of last year. Open to all artist-craftsmen, in fact open to anyone, with an anything-goes feel, the exhibition criteria was very loose—the only definite stipulation being that the work be somehow wearable and of an innovative and fresh nature. For a country like Canada, with small pockets of artist-craftsmen scattered everywhere and many inaccessible to each other and to the Toronto scene, the daring of gallery owner Suzann Greenaway in sponsoring such a risky and potentially slight show is most praiseworthy. And, contrary to all expectations, 250 individuals responded. On jurying day over 400 individual pieces were to be viewed, with 110 works being finally accepted—a large show by any standards.

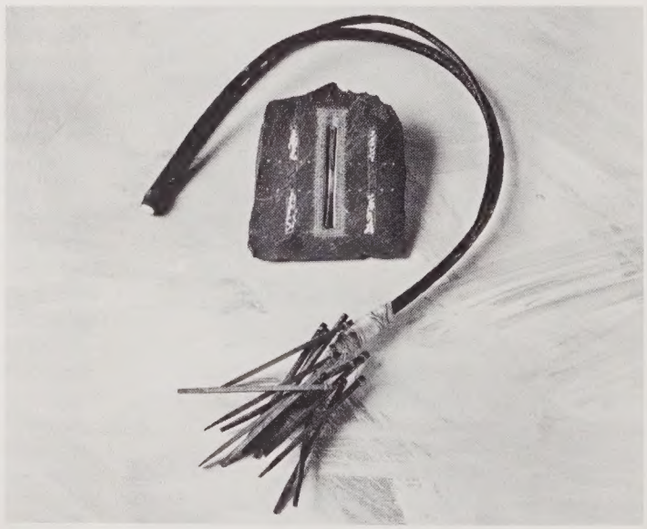
The energy, ideas and sheer cunning of many pieces shown were a stimulus to all who came. Both jewelers and workers in other media took the opportunity to cast off their usual methods, esthetics and attitudes to produce a wide and exciting variety of pieces.

Having briefly outlined what took place, I am now confronted with the difficulty of making any sort of objective commentary on the work alone, due to the fact that this whole exhibition was such an *event* and must be seen in that context. The spirit of the show, its cock-eyed feel, its modernist to post-modernist sensibility strongly affirmed that something not quite European, not quite American is happening up here in the "Great White North." On opening night there was a continuous improvisational performance by dancer Judith Hendin working in/on/around the jewelry. As she used the floor and the front window of the gallery, many passers-by and streetcars full of people slowed down and stared. The large opening crowd poured into the street, many of them wearing the wildest, most conceptual pieces themselves. Some were wearing works of their own not accepted in the show, a sort of walking "salon des réfusés."

But apart from the "happening" nature of the event I must address several pieces: David Didur's neckpiece made entirely of a long, partly burned fuse intertwined with layers of wooden matches and strings of firecrackers to which was clipped a rusted steel profile of the United States with symbolic red, white and blue lines will not soon be forgotten. The piece was a sharp political critique of the unpopular Cruise missile testing to commence here soon. At the opposite end of the spectrum was the clear-headed minimal red willow body pieces wrapped with colored threads by Kai Chan. Also notable were Richard Karpyshin's set of eight photo-documents of people at a party wearing his red enamel "X" pins, the red pins in turn being permanently installed over the corresponding life-size black-and-white image in the photograph; Lyn Wiggin's fine corrugated cardboard bracelet which looked and felt like a rotund accordian; Laura Biscotto's knockout bracelets and neckpieces made of nylon netting, black elastic and red electrical couplers; Beth Biggs's elegant and striking lead, wood and blue-jay feather brooch; Paul Leather's paper pieces; Stephanie Amos's stainless steel and niobium pins and Oksana Kit's terrific summer scarf of open grey plastic units. The materials used were as diverse as the entries: photos, empty slide-cases, toothpicks, rubber tubes, slate, earth, convention badges and all manner of found objects and metals. Plastic however did dominate, to me a weakness of many pieces that the use of acrylic and plastics as materials were seen to be somehow advanced or innovative.

Without doubt however, this was an invigorating, challenging and wholly stimulating show for participants and spectators alike. It was not only supportive and much needed here, but first rate as well, a landmark exhibition. ■

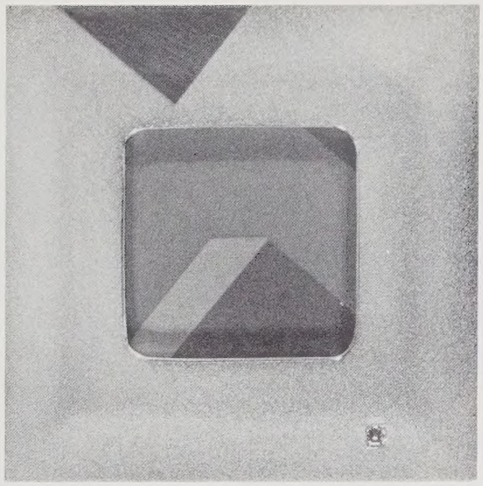




Above Laura Biscotto, *Necklace and Bracelet,* nylon, elastic. Photo: Tom Robe. **Above right** Kai Chan, *Lily,* bamboo, thread. Photo: George Whiteside. **Right** James Evans, *Slate piece,* twig, slate, oil pastel, engraved surface; Kai Chan, *Neckpiece,* red willow, green wood, thread. Photo: Jeremy Jones

The Metal Arts Guild of Ontario

by Anne Barros



In 1946 a small band of metal enthusiasts in Toronto, Canada, formed the Metal Arts Guild (MAG) "to promote and encourage the cultural and commercial development of metal arts and crafts both non-ferrous and ferrous." The articles of incorporation list the first directors as "Marjorie Steel, Married Woman; Nancy Meek Pocock, Silversmith; Harold Gordon Stacey, Instructor Craftsman; Russell Arthur Whitely, Solicitor; and Carl Herman Ansingh, Salesman." Despite the diversity of their backgrounds this was a serious group of artists working in metal who wanted their work understood and appreciated as art. Their aim for the new organization was that it be a Canadian version of the English Worshipful Company of Goldsmiths. The constitution stated that the guild's objectives were to provide and arrange for instruction in metal arts, prepare and conduct tests and examinations of skill and proficiency, establish standards and give diplomas directly or indirectly. At a time when much of the awareness of crafts was as therapy for returning veterans, the group's lofty ideals were especially praiseworthy.

It was the hope of the guild's founders eventually to buy or lease property for sales, exhibition and instruction. The sales, conducted either for profit or not, would include materials and tools for the convenience of the membership. Publication and distribution of books, lectures and instructional material were also foreseen. The social aspect was not neglected as the constitution empowered the guild to serve refreshments of all kinds to its members and their guests, and afford them "all the privileges of a club."

MAG in 1984 is the successful child of the Married Woman, Silversmith, Instructor Craftsman, Solicitor and Salesman. Like all children, it is not quite what the parents envisioned (there are no diplomas and there is no MAG edifice in Toronto) but the guild is a dynamic craft organization that is proud of its history of yearly juried exhibitions, public demonstrations of metalworking and informative programs for its approximately 200 members.

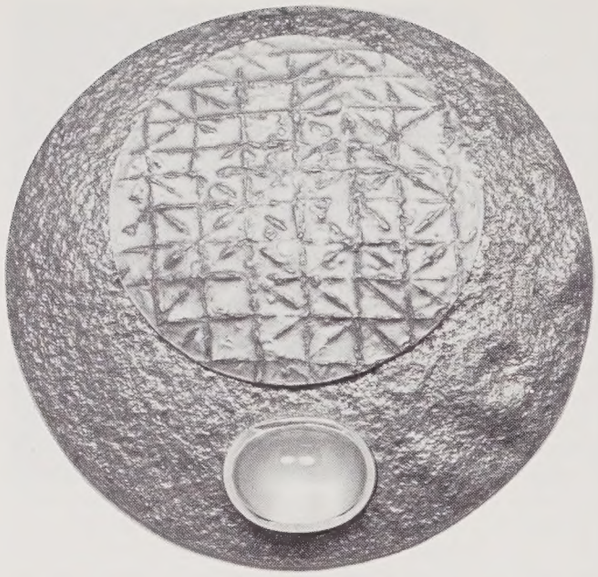
The first meetings in the 1940s featured "lantern slides," "a good old method of gilding on sterling spoons with linen ash" and talks by British potter Bernard Leach and Danish craftsman Bent Christophersen of Georg Jensen. "Coffee and daintees" were served for refreshment. Since then, the monthly Friday night meetings have run the gamut as the MAG executive strove to find interesting speakers and cull technical expertise from among the membership. Everyone knew that a promising speaker meant good attendance and hundreds have turned out on snowy Toronto evenings to enjoy and learn from such well-known craftsmen as Mary Ann Sherr, Bill Newman, Bob Ebendorf, Christel Klocke, Jamie Bennett, Hero Kielman and Lois Betteridge. Other meetings have been good forums for exchanging information on tools, techniques, marketing, design, photography—literally every aspect of metalwork.

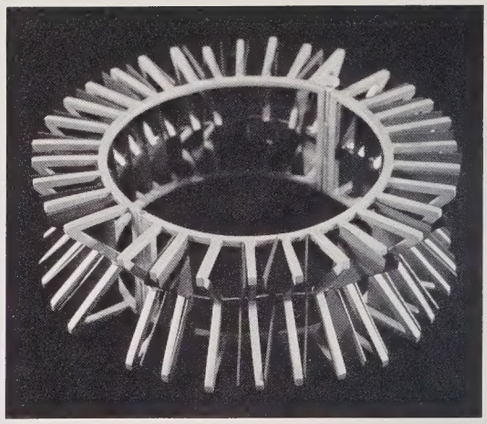
There has always been a loyal core which kept the guild functioning. At first it consisted of the founders and a few other professionals. One of these was Harold Stacey, internationally recognized as "Canada's silversmith," who set up the pilot project for Corning Glass to develop designs in forged silver to complement its Steuben Glass. Others included Andrew Fussell who opened his workshop to amateurs; Douglas Boyd, well known for his ecclesiastical holloware, especially the cigarette box that was presented to the Duke of Edinburgh; Jack Sullivan, master at the Ontario College of Art; Nancy Meek Pocock and John Pocock who ran their own jewelry studio in Toronto; Mary Milne known for her fine jewelry; Dr. Mark Zimmerman who excelled in miniatures; and George and Marjorie Steel whose work centered around their outstanding lapidary collection. Many other artist-craftsmen, important in the history of Canadian metalwork, have moved in and out of the core group during the last three decades as they generously gave their time and energy to this volunteer association.

The annual juried exhibition has usually been the high point of the guild's activities. The first shows were held at the Royal Ontario Museum and were strong in holloware, with everything from chafing dishes to tea sets on exhibit. Newspaper reviews rated many of these shows highly. A 1956 review said "the guild [work] is completely free of decadence" and its members are designer-craftsmen, not just craftsmen. While the public still regarded the crafts as a kind of psychological or cultural therapy, serious metalworkers were solving problems that had their exact counterparts in the fine arts. Indeed, the 1959 show traveled across Canada sponsored by the National Gallery of Canada.

Above left Michael and Paula Letki (Letki Designs), *Pendant,* sterling silver, 1973; **above right** Christian Gaudernack, *Brooch,* sterling silver, niobium and diamond, 1982

Anne Barros is a Toronto silversmith.





Left Charles Lewton-Brain, *Arctic Pin,* sterling silver, 24k doublée technique, moonstone, 1982; **Right** Melanie Egan, *Bracelet,* sterling silver and niobium, 1982; **Below** Metalworking demonstration by Jack Sullivan at the Robert Simpson Company, 1948

The yearly show was often seen as an index of the guild's technical or design well-being. If the professionalism sought in design and presentation was not there, the membership met to discuss how things could be bettered. As times and tastes changed, and metalworking techniques improved and became more varied, so the guild developed. The entire show process from the call for entry to the glossy show catalog and the guild's own showcases has taken years to evolve into a professional presentation.

Guild members, in the 1940s and 50s gathered for dinner before privately viewing the show. Now there is an opening party, the Steel Trophy (in honor of an early member) is awarded for the best piece in the show and $1500 in donated prizes are presented to winners in various categories. In 1976 the show was entitled "The Medium is Metal" and this name has continued. However, with many jewelers experimenting in alternate materials it is interesting to speculate what direction the Metal Arts Guild might take if its members all leave their bench pegs for fields of silk, plastic or rubber. This year's call for entry will stipulate that pieces submitted for the show contain metal. It will also be translated into French in the hope of attracting more entries from Quebec and reflecting the bilingual nature of Canada.

Aside from the show and the monthly meetings, other themes have persistently recurred in the lifetime of the guild—the need for a firm financial base and the desire for increased public awareness of the guild and metal art in general. On the financial side, the guild has been mostly dedicated to serving its members and not making profits from its activities. For the past two years funding from the Ontario Arts Council has helped bring guest lecturers and jurors from across Canada and the U.S., and corporate fund raising is an ongoing project to augment members' fees. Some members still fondly remember how fund raising 30 years ago was more difficult in an Anglo-Saxon Toronto that viewed a charity raffle as gambling and thus in contravention of the criminal code. Fortunately at that time Henry Birk, president of Canada's large jewelry store chain, was the guild's patron.

In a country where there seemed to be little appreciation of quality handmade articles, the guild has striven to increase its status in the community. From the beginning, the annual show was a focus for public attention and, later, demonstrating metal techniques at the Canadian National Exhibition became a yearly assignment to educate summer viewers in metal. A 1975 discussion planned a three-year program to boost the guild's image to that of the most professional craft organization in Canada with a portfolio of members and a permanent base of operation. Although incorporated in Ontario, the guild continues to attract members from several provinces and states.

Affiliation with the Ontario Crafts Council has enabled the guild to share experiences and problem solving with other guilds and benefit from the Council's good offices as lobbyist and intermediary with government. The Craft Council's catalytic role in bringing to Toronto the Smithsonian Institution's *Good as Gold* exhibition and its ensuing "Conference for Jewellers" was a benchmark for the guild and Canadian art jewelers in general who were delighted to meet each other and share ideas.

Today the guild is riding a high wave. Its newsletters report on members' activities: exhibiting internationally, opening new studios and shops and winning awards and grants. In response to member needs, the guild is working on common problems of marketing and publicity, and, to remind the Society of North American Goldsmiths that Canada is part of North America, it has applied to host a future SNAG conference.

The dreamers amongst the MAG membership see the future in terms of an edifice, be it office or loft, for the 200 strong metalworkers to call home. It would have sales area, studio, library and staff to serve not only the membership but the public who would with a new awareness seek out contemporary metal designs in everything from platinum to tantalum, stamped with the MAG logo as well as the maker's mark. Metal artists would be recognized by the government as artists, not manufacturers, and the "Medium is Metal" show would travel internationally every year. In sum, the child of the Married Woman, Silversmith, Instructor Craftsman, Solicitor and Salesman is ready at age 38 to become a Worshipful Company of Metalsmiths. ■

Health Hazards Questions & Answers

by Linda Weiss-Edwards

Dear Linda,
I frequently enhance my metal objects with wood. I am presently making a chessboard with cocobola and sumac. Are there any dangers in using sumac? Someone said that some people get serious reactions to using cocobola—could you discuss this and any other woods that might be hazardous to use?
—L.B.

Dear L.B.,
Sumac can produce a contact dermatitis similar to poison oak and poison ivy. Not everyone will react to these plants. I suspect that if you've been working with sumac and have not developed any rash or blisters that you are not sensitive to it. Poison sumac is the white-, or ivory-, berried sumac. "One can be poisoned by bruising or tearing the leaves or twigs of this plant (even in winter)," writes William Harlow in his book *Trees of the Eastern and Central United States and Canada,* Dover Publications, NY, 1957.

In answer to your other question about poisonous woods: Th buckeye seed is poisonous, but not the wood, or bark; greenhart is poisonous if it gets into your skin through cuts or splinters; redwood dust should not be inhaled, it can severely affect the respiratory system causing symptoms similar to pneumonia, with repeated exposures resulting in lung scarring and decreased lung capacity. Redwood splinters can be extremely more reactive than other wood splinters, also. Some other woods that might cause skin reactions, allergic dermatitis similar to poison oak or poison ivy, are South American Boxwood, mahogany, birch and dogwood. It depends on the individual and the type of exposure, contact dermatitis does not occur the same way in every individual. Pages 54–67 of *Work Is Dangerous To Your Health* by Jeanne Stellman, Ph.D. and Susan Daum, M.D., published by Vintage Books, 1973, has a very good description of skin reactions and diseases.

According to an article by Michael McCann in the October/November 1982 *Art Hazards News,* there is increasing evidence that prolonged exposure to wood dusts may cause several types of cancer—nasal cavity and nasal sinus. These cancers appear to be more prevalent in woodworkers than the general populace and more prevalent with the use of hardwoods than softwoods. There has not yet, to my knowledge, been sufficient studies about those who work with softwood.

Other research is investigating what diseases and conditions are resulting from pesticides and preservatives used in treating the woods. These may antagonize the respiratory system, eyes and mucous membranes.

Cocobola is very toxic—it can produce skin reactions, respiratory difficulties, and has been suspected of triggering nervous/emotional disorders. If you think you are having adverse reactions or symptoms from any material that you are working with, try a few preventative measures: wear work gloves, longsleeve shirts and other suitable clothing to prevent skin contact, protect eyes, nose and throat from dust with appropriate ventilation and respirators. Avoid carrying toxic dusts on your work clothes from your studio into your living environment.

If you do get a severe skin reaction, and you think it is from some material that you work with, go see a dermatologist with a list of what you think is causing the reaction. This will assist in determining proper treatment and preventative measures to avoid recurrence. If the doctor seems skeptical, call your local OSHA office and ask for a recommendation of a doctor who specializes in occupational skin or respiratory disease.

By developing a few precautionary work habits, you should be able to continue working with the woods you like without developing health problems.

Dear Linda:
Could we see something about the gas ozone: 1) The Toxic effects it has; 2) possible liberating of ozone caused by arcing in electric motors such as those found in flexible-shaft machines used by jewelers; 3) means of protection and/or remedies.
—Bernard Bernstein

Dear Bernard:
Michael McCann in *Art Hazards News* (July 1982) replies:
Ozone is a gas with a pungent odor which is a very powerful lung irritant. In large amounts it can cause chemical pneumonia although that is not likely to occur from arcing in electric motors. Long-term exposure to low levels of ozone can cause chronic bronchitis, emphysema, lung scarring and premature aging of lung tissue.

Ozone can be released whenever arcing occurs. The most likely cause of this arcing is worn brushes in the motor, although some arcing will occur even normally. If you are using these power tools for extended periods of time, I would recommend exhaust ventilation for the room to reduce the ozone levels. If arcing is excessive, then you should have the motor checked for possible repairs.

Another problem that is common with power tools is lack of proper grounding. This could result in severe electrical shocks. Power tools should always be grounded. Even better protection can be obtained by installing a ground fault interrupter which will shut off the power if a short circuit occurs. ■

Submit questions for this column (typewritten, double-spaced) to Linda Weiss-Edwards, P.O. Box 1032, Sausalito, CA 94966.

The author of this column assumes no liability for the processes, procedures and precautions recommended herein.

Book Reviews

Jewelry: Contemporary Design and Techniques by Chuck Evans, Davis Publications, Worcester, MA, 1983. 296 pages, 566 illustrations, 30 in color; $24.95

Today's metalsmith and jewelry designer has available a full range of reference books—from the general text, which gives a broad overview, to the topical text, which explores a specific technique in great detail. In addition, we now have the popular bench reference guide and the glamorous coffee-table version. The last 10 to 15 years has witnessed a renaissance in the field of metalsmithing which has brought about expanded technical exploration and its documentation in book form. Certainly, it's hard to believe that in 1969 when I took my first metals course there were but two or three books readily available on the subject.

When I received *Jewelry, Contemporary Design and Techniques,* I asked myself, what could possibly be different about *this* book? Hadn't every imaginable topic already been covered? What immediately intrigued me was that I had always admired Evans's work. Flipping through the pages I was struck with how this book reflected the personality evident in Evans's work. While it offers an excellent chapter on basic techniques, it also covers such areas as surface enrichment, inlay, laminations and chainmaking.

The book is aimed at the metalsmith with some experience. It has numerous photos, good illustrations and most important *clear, step-by-step* directions. This book can be picked up and read in part or cover-to-cover. It is easy to find information or refer back. Particularly interesting is the chapter on "Surface Enrichment," which describes such techniques as roller printing, etching, torch textures and working metals such as titanium and aluminum. The chapter on "Casting" is thorough. Rarely have I seen sprueing and burnout handled with detail and clarity. Here the author gives accurate advice. The two most interesting and unique chapters are "Inlay" and "Laminations." There have been many articles and short "how tos" written about these two popular tech-

niques. Here the information is brought together. The chapters are visually interesting (some of the most exciting work appears here), and the processes are clear and well documented. The chapters can offer a student an excellent transition point or clarified review. Having used many of the processes myself, I can attest that they are accurate. Further, these chapters offer unlimited design possibilities.

This is an interesting and well-written book. It is unfortunate that a higher design standard was not employed in the selection of the work used as examples. Most of the work is weak esthetically and the photos are of poor quality. This is regrettable because the text is well done and easy to read. For the metalsmith who is confident with basic techniques, this book should offer design inspiration and solid reference.
—Paula S. Dinneen

Modeling in Wax for Jewelry and Sculpture by Lawrence Kallenberg, Chilton, Philadelphia, PA, 1981. 252 pages, illustrated, $18.50

My first reaction when I heard about this book was, "It's about time." Think of it: If you tried to read every new book on jewelry-making, you would be reading most of the time. Yet, how many books can you name that concentrate primarily on the art of working wax? This is surprising when you consider that lost wax casting has been around for a few thousand years and has been one of the chief means of production among craft jewelers and manufacturers for the last four or five decades.

I guess the reasons for the neglect may be that almost every how-to-do-it jewelry book has some information on casting, and wax model-making will usually be covered, even if superficially; and possibly modelmakers chose not to write books, either because they wanted to keep their knowledge private or because they felt there wasn't that much useful information on the subject to fill a book.

It is the nature of systems to progress to higher levels of complexity, and the jewelry field is not exempt from that law. Each generation builds on the knowledge laid down by the previous one and specialization becomes the inevitable result. There is a time for everything, and this book by Lawrence Kallenberg is one whose time has come. He realized that a chapter on wax modeling in the average jewelry-making book was not enough and that the field had become so specialized that there was, indeed, enough to fill a book.

A glance at the table of contents suggests that little or nothing has been left out. The book goes into careful detail on tools and equipment, the many different types of wax available to the modelmaker, the characteristics of each wax and ways of working waxes. There is even information on finishing the metal casting.

The book is organized around a series of projects, each exemplifying either a particular type of jewelry, a type of wax or a method of working wax. Some people may find the project approach confining; I find it to be the most efficient way to help students master a set of skills so they can proceed to the personal expression phase of their work with more confidence. Kallenberg doesn't just assign the project and leave you to flounder on your own. He lists the tools and materials you will need for each piece of work. He provides precise, beautifully drawn pen-and-ink illustrations and, best of all, he goes into extraordinary detail on every step of the procedure.

It is easy to conclude that the author has thought of everything and would feel terrible if he didn't share it with you. Sharing information seems to be a custom among most American craftsmen, and, fortunately, Kallenberg has followed this tradition. Much of what he writes has a tricks-of-the-trade aura about it and is invested with the sense of authority that comes from mastering a craft first and then deciding to write about it.

Do I have any reservations at all? Yes, there were one or two minor technical slips having to do with metal rather than wax working. I also felt that the author tended to, pardon me, wax poetic more often than necessary by referring to the "things of beauty" the reader is making. Otherwise, based on what I have seen so far, this is the definitive work. If you want to work with wax, you should own this book.
—Bernard Bernstein

Silversmithing by Rupert Finegold and William Seitz. Chilton, Philadelphia, PA. 445 pages, 687 black and white illustrations, $35

Silversmithing is a big topic. While I have a few reservations about this book, my overall response is that it handles its content with thoroughness and detail. Let me deal with the shortcomings first.

For me the organization of the book was hard to follow. Particularly when so much material is being covered, logical development is crucial. As I read I kept encountering descriptions of tools and procedures that repeated similar passages from earlier chapters, leaving me with an ambiguous sense of having been there before. The book is divided into 44 chapters and each of these is broken into further subdivisions. This pigeonhole style contributed to my difficulty in progressing easily from one idea to the next.

I would have enjoyed a brief overview of the rich history of silversmithing and the wealth of examples such a review would occasion. I wish also that more attention had been paid to safety precautions. This is becoming a recognized obligation in textbooks; more should have been said. And finally, some of the tables in the appendix seem to me to have little practical use, while other information, like a bibliography and list of suppliers, is notably absent.

These shortcomings should not overshadow the value of *Silversmithing.* The authors have achieved the difficult synthesis of formal instruction with personal experience. A friendly heart beats beneath the written word, welcoming beginners and challenging advanced smiths. The last third of the book (where the authors seem to have hit their stride) is especially rich in practical advice that could only come from a lifetime of experience. It is conceivable that to a smith who has a specific problem, just the answers tucked in the last two sections would justify owning the book.

The photographs and especially the drawings get very high marks from me; they were consistently clear and helpful. I think the authors also deserve credit for recognizing the perimeters of their topic. The chapter of casting, for instance, contents itself with providing a glimpse at the techniques and concludes by flatly recommending that a silversmith employ a professional caster unless he has a special interest in that area.

I don't think *Silversmithing* is a must for every metalsmith's library. But then, I don't think it was meant to be. It represents clearly the attitudes and techniques of the silversmith in contrast to the jeweler or metalsmith. This subtle difference is important and, as Finegold and Seitz point out in their preface, it is a distinction that is dissolving. In addition to being a practical studio aid, this book is a valuable historical benchmark of the art of the smith.
—Tim McCreight

Many books reviewed here may be ordered at a discount through the Society of North American Goldsmiths' Book Department. For further information: write Glenice Matthews, 513 Everett St., Wichita, KS 67213.

Metalsmith
Index to issues 2/3—3/4 1982-83

Compiled by Joanne Polster

Abbreviations are as follows: *il* denotes illustrations and text; *illus* denotes illustration only; *por* indicates photograph; *exh* or *bk rev* indicates exhibition or book review. *S, F, W, Sp* indicate Summer, Fall, Winter or Spring issues respectively. Listings pertain to the United States unless otherwise noted. An asterisk indicates major articles or reviews.

ABELSON, Mort Participant: SNAG Conference at Asilomar, 1983 (comments on production jewelry). 3/4:55 F83

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BALDWIN, Phillip Letters to the editor: reply to *Techniques for the Head* by Bruce Metcalf (3/1:18-21 W83). 3/3:6 S83

CRITICISM Editorial: cites the need for critical exhibition reviews. 3/1:3 W83

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BESSE-SHEPARD, Anne exh rev 2/3:48 S82

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BORD, Stephen exh rev 3/1:40 W83

BOUSE, Greg, jt auth See: Freeman, Harry W.

BOVA, Ken Metal (exh rev). 3/4:44 F83 (3il)

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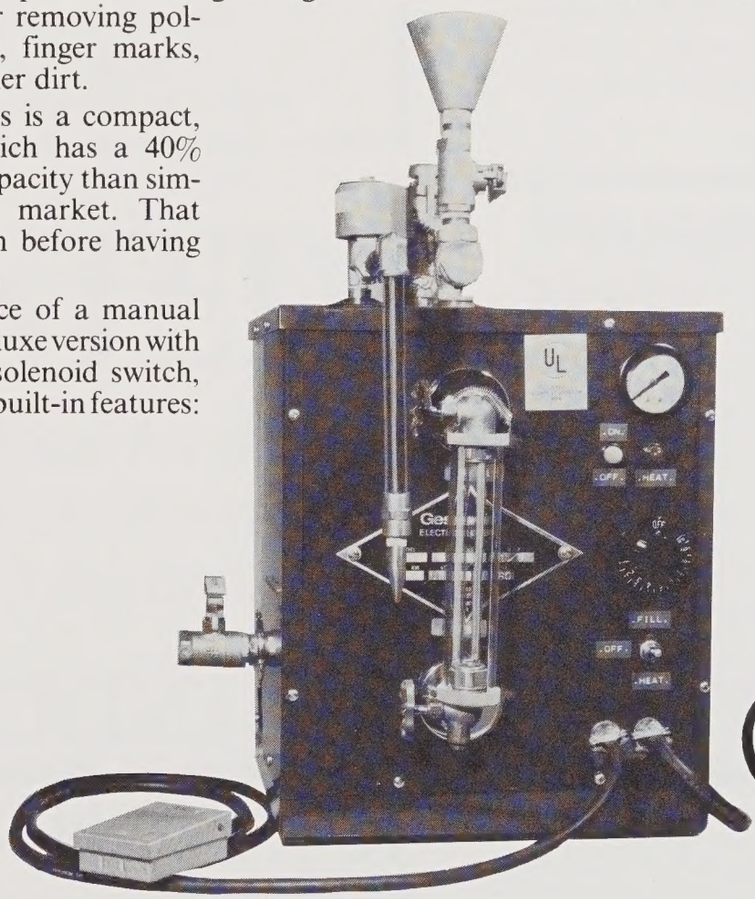

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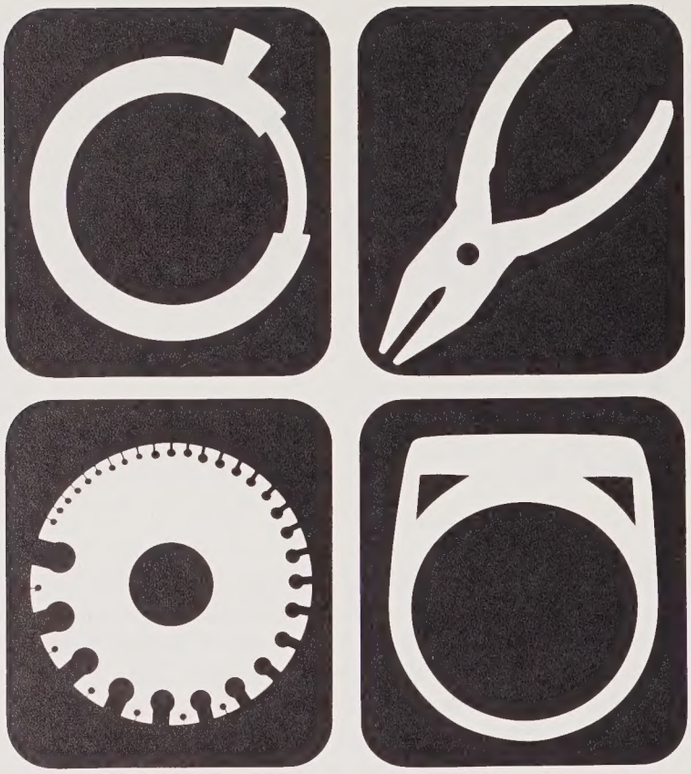

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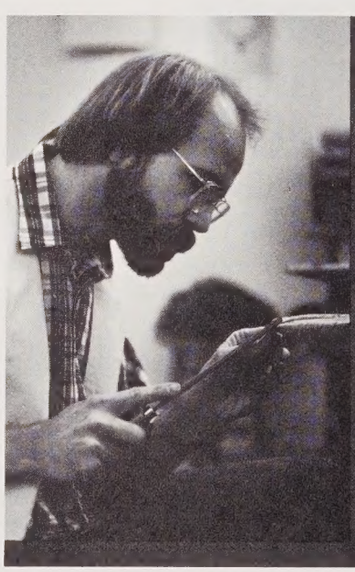

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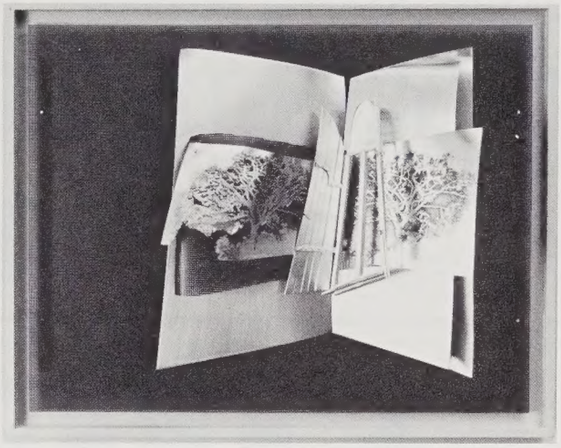

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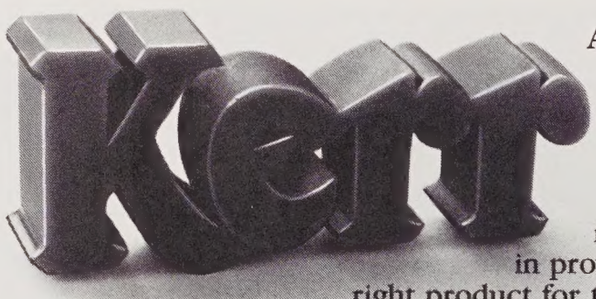

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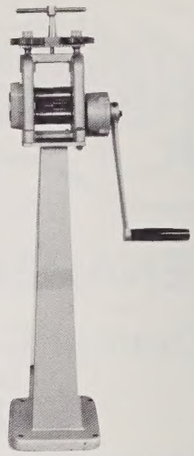

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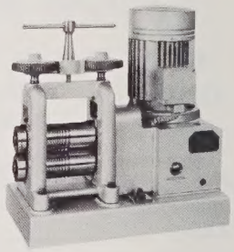

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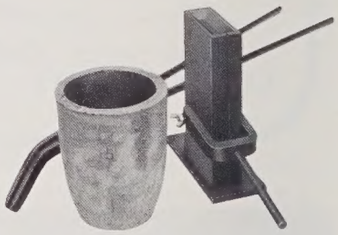

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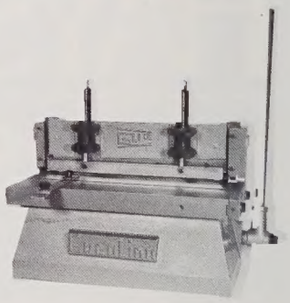

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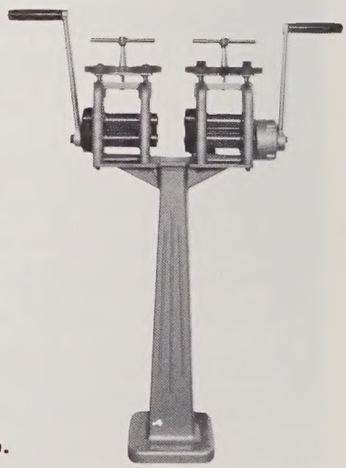

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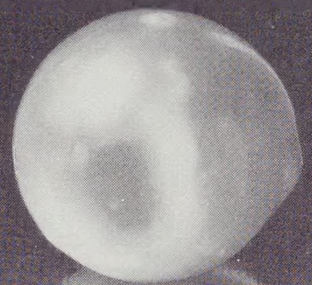

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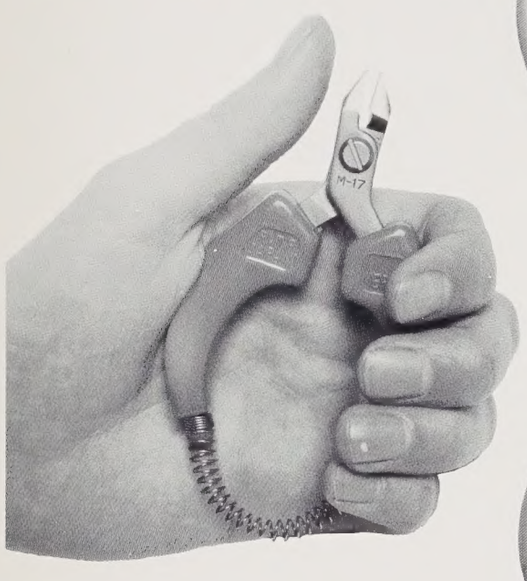

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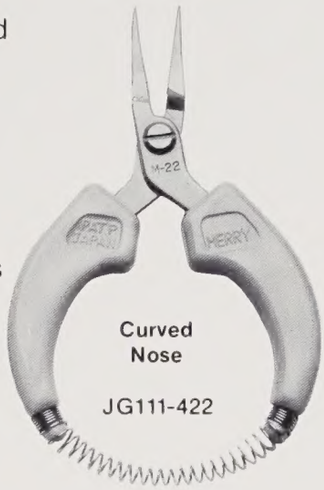

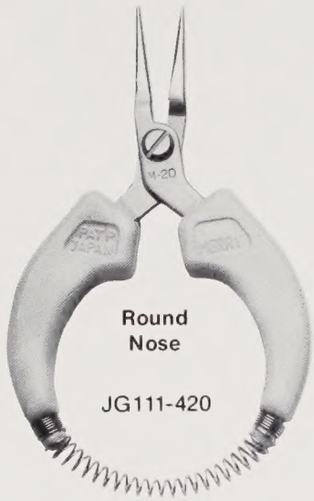

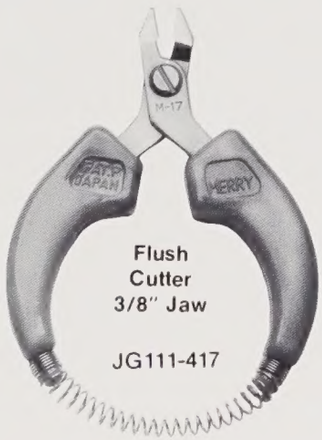

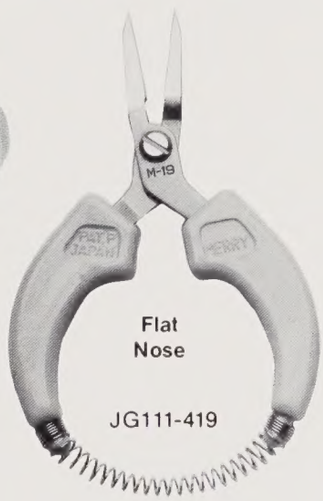

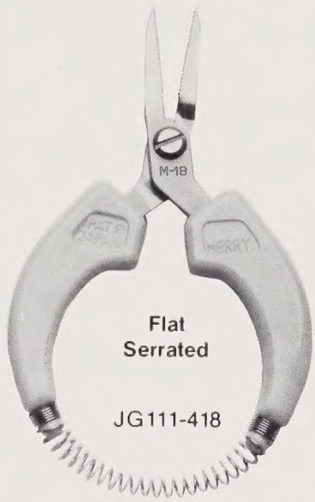

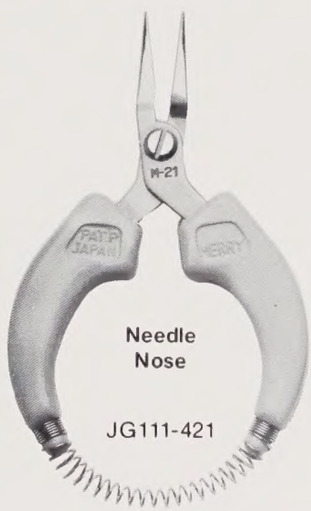

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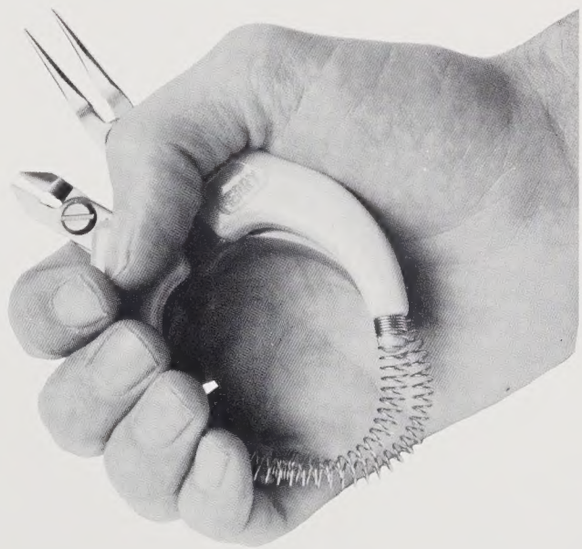

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